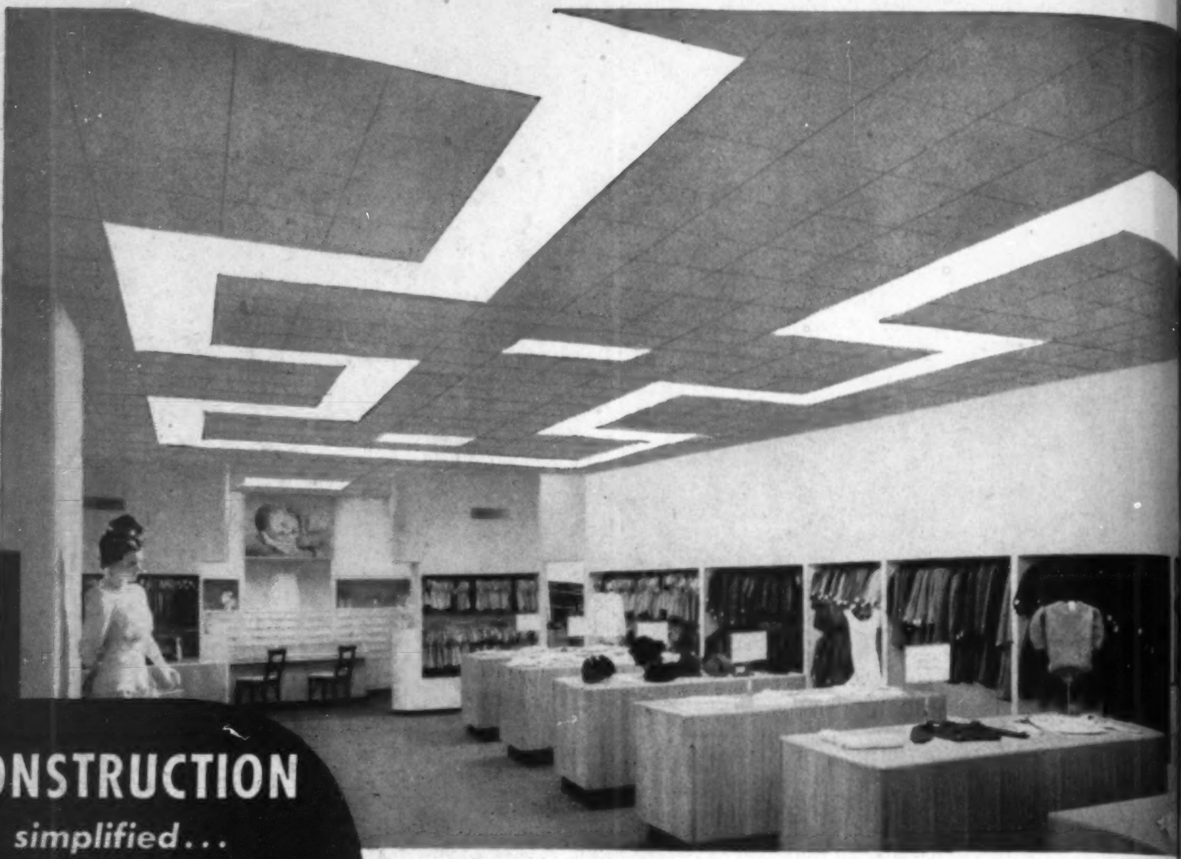
JUN 12 1945

ARCHITECTURAL RECORD

NEIGHBORHOOD SCHOOLS • JUNE 1945



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ARCHITECTURAL RECORD

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COMBINED WITH AMERICAN ARCHITECT AND ARCHITECTURE

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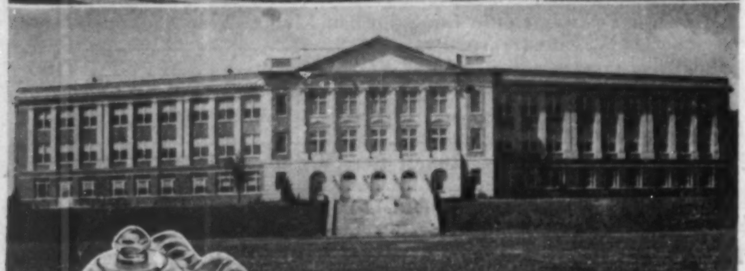
Selecting
FLUSH VALVES
FOR SCHOOLS



A RECENT survey among architects, widely experienced in school design, discloses a number of interesting trends in flush valve applications for schools.

For example, it shows that concealed and top spud flush valves continue to be preferred for most installations, while foot-action flush valves seem to be gaining in popularity. Silent-action flush valves are preferred 3 to 2. These and other trends are discussed in the booklet offered below.

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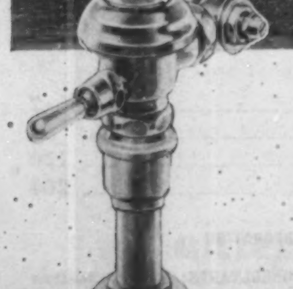
Lake Placid High School, Lake Placid, N. Y., equipped with Watrous Flush Valves. H. O. Fullerton, Albany, N. Y., Architect. A. J. Eckert Co., Inc., Plumbing Contractor.



ARCHITECTS' VIEWS ON FLUSH VALVE APPLICATIONS

A survey of interesting trends in the selection of flush valves for postwar schools is given in Bulletin No. 477. Write for your copy. See Sweet's Catalog for full information on Watrous Flush Valves.

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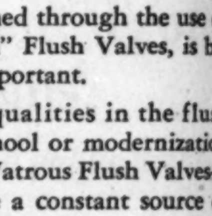

Watrous Flush Valves

THE RECORD REPORTS

V-E Day and Building Restrictions • Findings of Data-Gathering Washington on Building Prospects • Postwar Probabilities • Public Works Planning Loans Available

FEDERAL eyes turn more and more to the construction industry as the nation's economy rounds the V-E Day corner and starts down the road of reconversion. High quarters recognize the industry as a major key to maintaining employment and providing an adjustable stimulus to business generally. The war agencies have it in mind in relaxing their controls over materials, the peacetime offices of the federal government are readying plans to assist, and the committees of the Congress are assembling data and projecting broad blueprints.

Any pickup in construction, however, is expected to come first in the field of maintenance and repairs. With the lumber situation growing more instead of less critical, elimination of controls will help little on new building. Note, nonetheless, that War Mobilization and Reconversion Director Vinson expects at least 250,000 homes and apartments to be built during the next 12 months and possibly as many as 400,000.

Building Restrictions

Restrictions on home building are not scheduled to end entirely until materials and manpower become generally available, which may mean for some time after Japan is defeated. The War Production Board's permission for delivery after July 1 of steel, copper and aluminum without CMP allotments does not mean that, even in the case of these commodities, orders which are placed will be filled. Orders will be filled only where delivery can be made without interference with authorized CMP orders. The program for a simplified priority system and orderly elimination of the Controlled Materials Plan will do little to disturb present priorities, which are expected to remain in effect for the rest of the year.

But WPB has modified and will continue to modify its controls. Even as V-E Day arrived it made special arrangement to meet construction needs for reconversion. It is approving applications for projects not interfering with the war effort and necessary to ready civilian production. Applications are subject to these qualifications: they must cover relatively minor additions or alterations, must be not more than actually needed, must not constitute replacements, and the product to be manufactured must be needed for the civilian economy.

Another point to be noted in the WPB picture is that its inventory curbs may be applied unevenly. While in general the agency will be firm in putting the lid on purchases, in many fields such as building materials, it wants to accumulate stocks in the hands of distributors so that the industry will not run into unexpected bottlenecks when it does get going.

Preparatory Data

An indication of Washington concern over prospects for the construction industry is the array of data and suggestions it is gathering. Its idea factories are busy both producing and collecting plans. Out of these will be culled much that will influence every phase of building activity in the years immediately ahead. Fine-combing of the findings brings to light the following:

1. With the large backlog of accumulated demand, the total new housing units needed will roughly double the highest annual rate of the best prewar year. There is a similar accumulation of demand in commercial and industrial fields and in other types of private construction.

2. Among government planning aims is more construction at less cost—for instance, houses at $3,000.

3. Means to check an inflationary trend in housing prices are under study.

4. Next to housing, building of the "social overhead" such as highways, schools, hospitals, etc., appears to offer a promising field.

5. New private industrial construction opportunities include plants for production of consumer and durable goods; deep-freeze food storage plants and lockers; stockyards and packing house facilities; warehouses, grain elevators, mining structures, railroad terminals, bridges; oil pipe lines, pumping stations and refineries; civilian airports, public utility plants, stores, hotels, and office buildings.

Rental Housing

6. Wartime experience may bring the building industry increasingly into rental housing and lower-priced housing.

7. NHA is considering a plan of guaranteeing a minimum return to large institutions investing in rental housing over a long term, which might produce a volume of sound housing at lower rentals than have previously been generally available.

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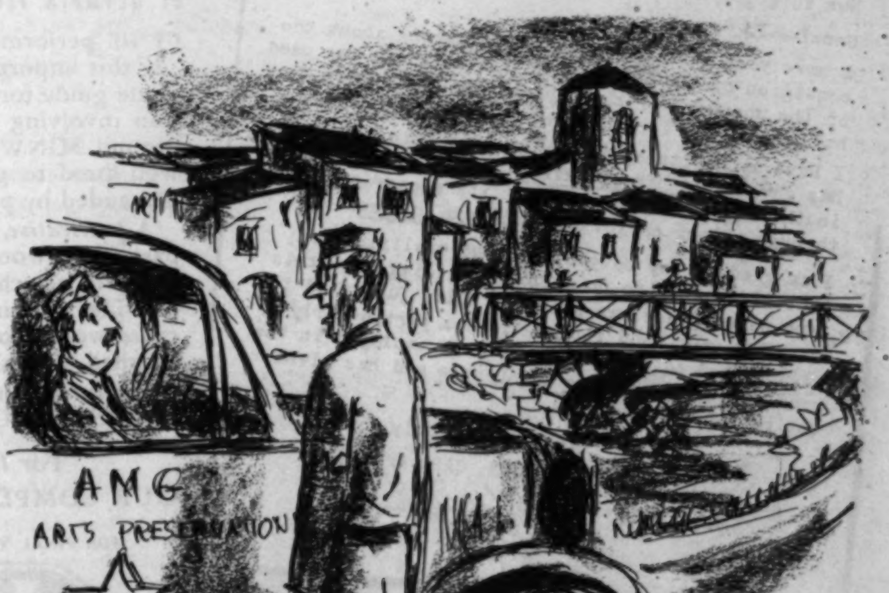

"The trouble now is they like their Bailey bridge . . ."
—**Drawn for the RECORD by Alan Dunn**

A REPORT on the PERFORMANCE of MINWAX WOOD FINISHES

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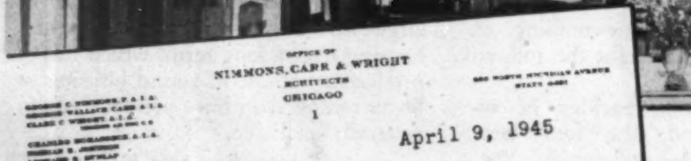

OFFICE OF
NIMMONS, CARR & WRIGHT
ARCHITECTS
CHICAGO
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April 9, 1945

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By C. C. Wright

CCW/HJ

Nimmons, Carr & Wright, Architects

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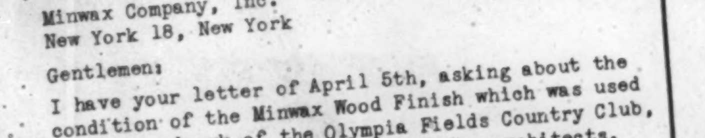
Exterior view of Olympia Fields Country Club



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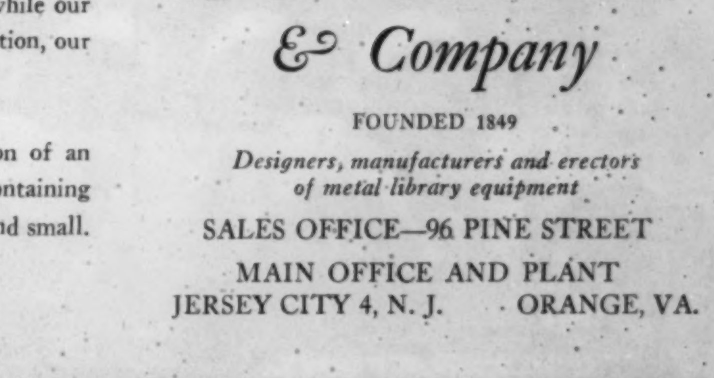


Pearson and Wilson, *Architects*

THE RECORD REPORTS

(Continued from page 7)

8. Local governments and communities must take primary responsibility for planning and programming of houses in tune with best practice and long-range interests. Communities must be encouraged to look fully into their housing supply, needs and markets.

9. However, states and counties are not yet ready for large public works construction. Their planning needs stimulation. While some programs are in the design stage, twice that amount is in the preliminary stage and three times as much is still in the idea stage.

Construction Survey

10. A community construction program survey now is being carried out under the Committee for Economic Development, utilizing the services of local contractors, public officials, bankers, trade unions and professional and business groups associated with the construction industry locally.

11. Emphasis falls on getting preliminaries to construction out of the way now, including such preliminaries as engineering surveys, site acquisition, blueprints, specifications, legal clearances, preparation of contract documents. These preliminaries may require from several months up to a year or two, and could hold back construction activity sizably.

12. Needed federal government stimulus to construction, key men of the industry are telling Congress, includes gradual lifting of WPB limits, incentive for materials and equipment dealers to stock up and for new dealers to get started, releasing of tools to manufacture construction equipment, canceling taxes on cost of private construction plans, and more funds for loans to plan public works.

Postwar Probabilities

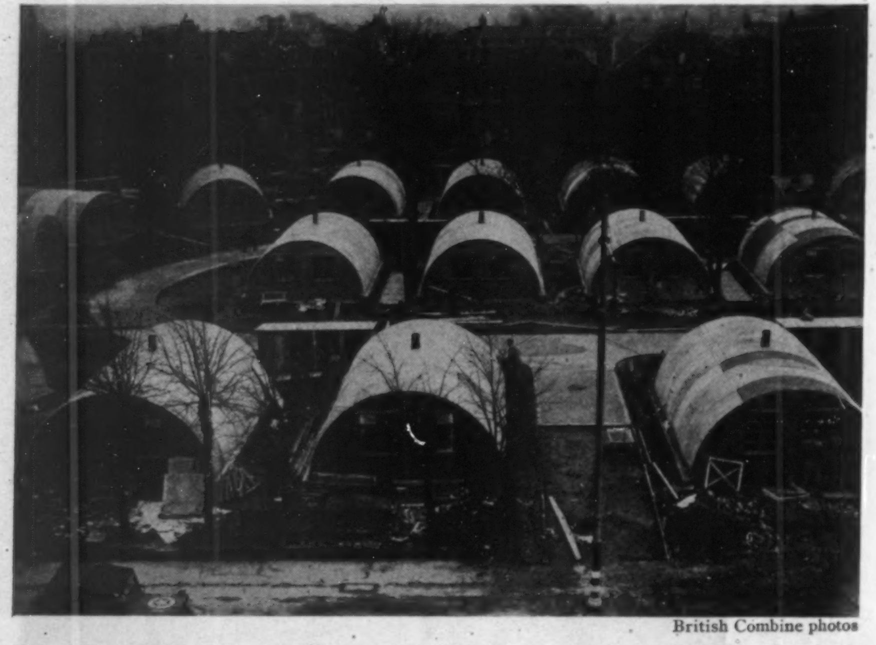
A long look at the probabilities in postwar construction is given in a detailed study by the Division of Construction and Public Employment in the Department of Labor. Annual volume of projects foreseen approaches $11 billion, with, perhaps, $4.5 billion in last year of war against Japan. Largest single element will be nonfarm residential building with about 900,000 new dwelling units per year. Modernization will be important in industrial building. First public works probably will be highways and streets.

Postwar construction will resemble closely prewar structures of the same field, the Division finds. Design and construction will change little, although some experimental or pioneering operations will influence designers. No "miracle houses" are looked for. This is true also of functional requirements, except that changes in details of design, such as for customer circulation in stores, may occur. Market studies, however, indicate probable demand among home buyers for more space than provided in wartime houses.

Among other findings:

Off-site fabrication of processed materials into panels for floors, walls, etc., which was limited prior to the war, has grown tremendously and numerous firms have concrete plans for postwar operation. Off-site processing of materials, including assembly, may grow also. Cited in this connection are

(Continued on page 12)



British Combine photos

One of the Nissen-type hut colonies erected by American GI's for homeless Londoners

Two GI's bricking in the end of a hut

GI JOE HELPING TO HOUSE LONDONERS

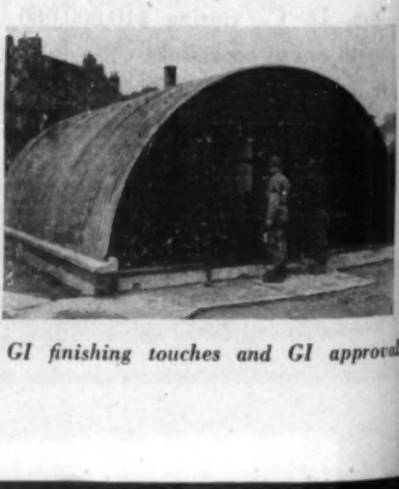
An interesting sidelight on Britain's current rehousing program is the fact that GI Joe is helping with it. American soldiers in greater London are erecting Nissen type huts, made of corrugated asbestos instead of iron, to rehouse some of the 500,000 bombed-out Londoners.

Ten thousand of the Nissen huts have been put at the disposal of the Ministry of Works, and 3000 of them already have been erected. The GI's are responsible for more than 330 of them in the Lambeth section of Greater London. At the corner of Loughborough Road and Minnet Road, Lambeth, they have erected a circle of 14 huts, handsomely christened Loughborough Gardens. Concrete paths join the huts, and trees grow on and around the site.

The fronts and sides of the Nissens are prefabricated, the ends bricked in. Each has two bedrooms, 9 by 10 ft. in size, a combined living and dining room, 10 by 12 ft., and a 9 by 12 ft. kitchenette. There is a gas stove, a brick fireplace, electricity and water.

More than 4,530,000 houses in the British Isles were destroyed or damaged by enemy bombing before the rocket bombing began—over one-fourth of all the houses standing in 1939. In Greater London alone, a total of 107,000 have been demolished, and 170,000

(Continued on page 140)



GI finishing touches and GI approval

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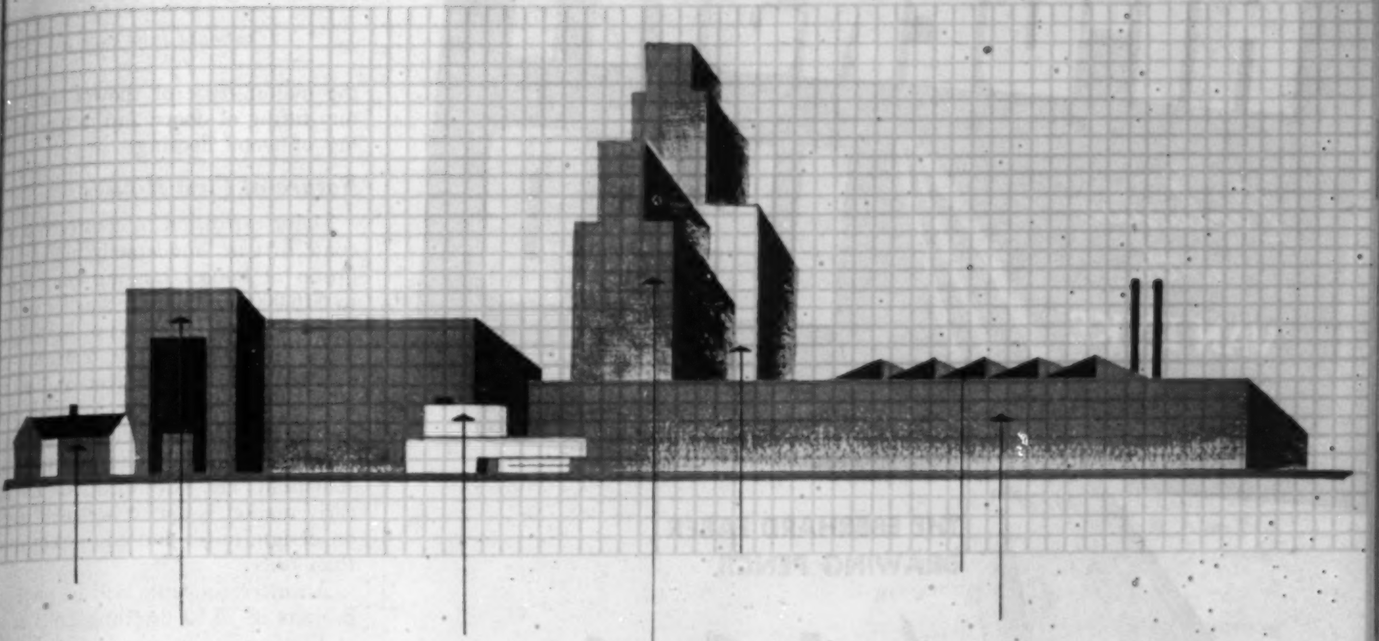

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(Continued from page 10)

the manufacture of shower stalls, fa tory fitting of doors, and factory finis ing of wood flooring.

Nature of First Houses

Major expansion in construction wi come first in "moderately high-priced group of houses ranging from $7,00 to $10,000, and in the smaller field o higher-priced houses up to $25,00 These will permit more extensive u of mechanical equipment and of th more expensive newer materials tha the cheaper houses, such as improve heating and plumbing, electrical in stallation, etc. Competition for th early market is apt to be based mainl on design, finish and equipment rathe than price.

An increasing role will be played b projects of 25-50 dwelling units or u

Tendencies in commercial buildin will include "supermarkets" for foo stores, suburban branches for depar ment stores, "drive-in" establishment installation of escalators and of a conditioning, modernization of ligh ing, new store fronts and entrances.

Geographical shifts are due in som industries, such as expansion of pape and wood pulp industries in South an possibly, aluminum in the Northwes

Religious structures and hospitals a expected in good volume.

Ultimately a rapid increase is for seen for slum-clearance by local hou ing authorities.

Prefabrication

The relation of prefabrication to th anticipated large volume of residenti building construction is scrutinized i a report submitted to the Senate by subcommittee on wartime technolog cal developments. The report is in re ality a monograph prepared by th Bureau of Labor Statistics for the sub committee.

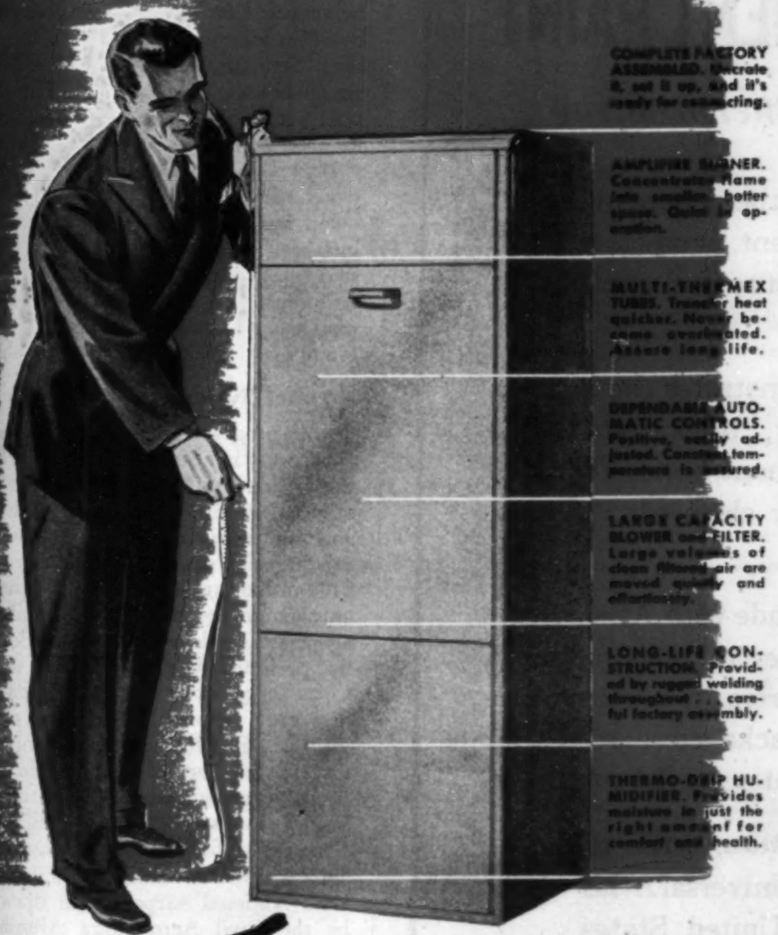
Belief is that while prefabricatio will be used more than before the wa the industry is as yet too small an marketing methods too undeveloped t permit more than a small proportio of early postwar work to be handle by this technique. Prefabrication sy tems have been adopted for applicatio to local lumber yards.

Most of the wartime prefabricatio work has been confined to panels fo houses not differing radically in con struction from the conventional prewa types, and most of the immediate pos war operations are likely to be simila Such houses will probably find mor ready acceptance than those embodyin radically new features.

(Continued on page 14)

How to measure the heating values you specify . . .

. . . it's not size that counts!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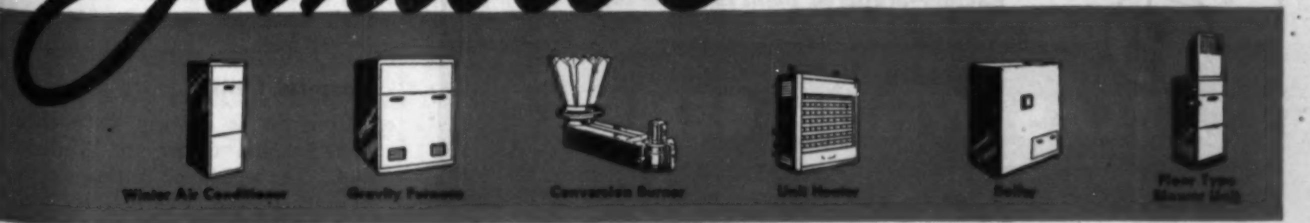
That's why, to make the best use of clean, comfortable gas heat, so many home builders and designers have specified Janitrol.

For no other gas-fired heating equipment provides the *combination* of advantages that Surface Combustion has engineered.

Check the Janitrol features listed on the opposite page. They are the values that measure the warm comfort and long-time high performance you'll want to specify just as soon as equipment is again available. Surface Combustion, Toledo 1, Ohio.

Janitrol GAS-FIRED HEATING EQUIPMENT


Winter Air Conditioner
Gravity Furnace
Conversion Burner
Unit Heater
Boiler
Floor Type Blower Unit

PORTLAND-CEMENT PAINT

for low-cost Weatherproofing

A protective finish of portland-cement paint, made with Atlas White Cement, protects exterior walls against excessive moisture and extremes of weather.

This weatherproof paint penetrates the pores in concrete, concrete masonry, brick, stone and hollow tile to form a permanent bond. It makes a lasting finish that is easily cleansed. Frequent repainting is unnecessary.

Portland-cement paints, made with Atlas White cement, are economical. They're prepared by a number of paint manufacturers in a wide range of colors . . . conveniently packaged . . . ready for mixing with ordinary tap-water on the job.

For further information, write to
Atlas White Bureau, Universal Atlas
Cement Company (United States
Steel Corporation Subsidiary),
Chrysler Bldg., New York 17, N. Y.

Factory-prepared paint is preferable

AR-P-8

ATLAS WHITE CEMENT
FOR PORTLAND CEMENT PAINT

THE RECORD REPORTS

(Continued from page 12)

It is assumed that in general prefabrication will not bring about any immediate or revolutionary changes in the appearance of the low-cost housing to which it will be chiefly applied.

Note is made of the probability of an increase in production of packaged units for heating, bathroom, stairways, windows and the like.

New Materials

Probable use of new materials in postwar houses is pointed to by the Bureau. Metals may now be bonded to wood or glass and glass to wood or plastics. Plastics may be used for interior fixtures and plastic sheets may be veneered on plywood or ply to hard board or asbestos panels for wall finishings. Structural glass can be used in small houses at low cost. Processed wall boards will be used as insulation, as plaster substitutes, or as sheathing.

Plywood and other types of treated wood may be variously employed. Plywood has been found satisfactory, for instance, in prefabricated sections for structural beams and supports of large buildings, and is being considered by mail-order houses for prefabricated grain bins, chicken houses and sheds.

Airport System

The program for a national system of airports is nearing form in the Congress. Pending legislation would provide federal aid for 3,000 new airports and for improvements of some 1,600 existing airports, at an annual cost of $100 million to be matched by a similar amount on the part of state and local agencies. Funds would be provided also for preliminary planning and surveys so as to be ready for actual construction even before the technical end of the war. Emphasized as an important and related part of this picture is the probable growth about the airports of service industries, which will afford opportunity for additional construction.

Congressional consideration is based on a National Airport Plan drawn up by the Civil Aeronautics Administration last year. This plan is reproduced in full in the 120-page House Document Number 807 of the 78th Congress. It includes a detailed breakdown of projected airport locations by states and by cities within each state. In New York State, for example, 251 airports are set forth.

Hospital Center

Congress is moving to establish a new hospital center in Washington, D. C. The legislation to this end would

(Continued on page 16)

NATIONAL ELECTRIC PRODUCTS
NE
WIRING 6 SYSTEMS
WIRES AND CABLES

Sherarduct

A RIGID STEEL CONDUIT

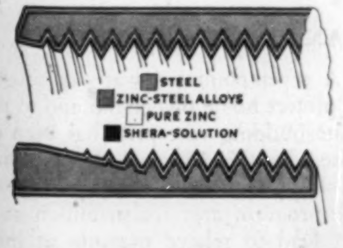
worthy of your finest buildings

SPELLERIZED
SHERARDUCT
SCALE FREE

NATIONAL ELECTRIC

SHERARDUCT

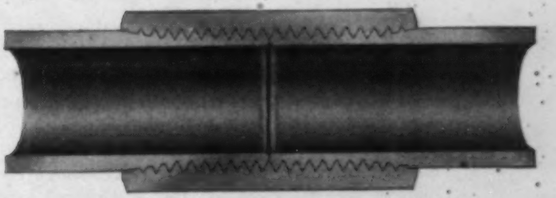
- **IS MORE HIGHLY RESISTANT TO MOISTURE AND CORROSIVES.**
- **BENDS MORE READILY.**
- **FABRICATES INTO THE JOB EASIER.**
- **"LASTS AS LONG AS THE JOB."**



Cross-section of Sherarduct

NE Sherarduct is a rigid steel electrical conduit that is worthy of the finest buildings. National Electric pioneered "Sherardizing" over thirty years ago. This process, by which zinc dust is driven into steel pipe and applied to the surface under heat, is unsurpassed for protection against rust and corrosion.

Even deposit of the zinc gives a uniformly protected, smooth surface over which is applied Shera-solution which impregnates the zinc. In addition, the steel is "Spellerized" to produce a pipe which works more smoothly, bends easier and threads cleaner.



The craftsmanship in this conduit is illustrated by the coupling. The tapered threads provide strong, close union which keeps out corrosion. For complete information write for our 350 Page Engineering Data Book—free.

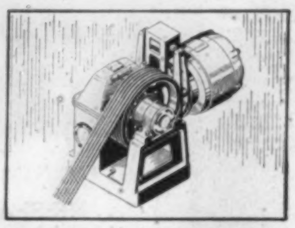
CONDUITS, RACEWAYS, WIRES AND CABLES FOR EVERY ELECTRICAL PURPOSE.

National Electric
PRODUCTS CORPORATION
Pittsburgh, Pa.

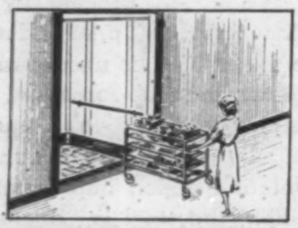
Designed for the Smaller Hospital

TO SEE THE ELEVATOR OF TOMORROW . . .
LOOK AT SEDGWICK HOSPITAL ELEVATORS TODAY

Modern design inside and outside. Sedgwick elevators become an integral part of the hospital.



Precision-engineered Sedgwick elevator machines are specially designed for hospital elevator service.



Sedgwick Hospital Elevators are ruggedly constructed to do many essential jobs.

Comfortably proportioned to accommodate stretchers, visitors or hospital personnel.

The *new* Sedgwick Electric Hospital Elevators are expressly designed for use in hospitals up to six floors where car speeds up to 150 feet per minute are required.

These multi-use Sedgwick elevators are made with three types of control. *One*—The Sedgwick simple, straight automatic push button control with dispatching buttons in the car for each landing and a call button at each opening, for operation without an operator or attendant. *Two*—Sedgwick's self-centering, manually operated lever-type car switch for those elevators to be run by an operator. *And three*—Sedgwick dual control which offers all the advantages of automatic floor stops and permits operation of the elevator with or without an operator by simply flicking a switch.

These are some of the advantages of Sedgwick Multi-Use Electric Elevators for smaller hospitals. There are many more. We would like to tell you about them. So if you have a perplexing lifting problem—present or postwar—tell us about it. Our engineers will be happy to help and show you how Sedgwick elevators solve smaller hospital vertical transportation problems through safer, surer, more economical operation.

Sedgwick MACHINE WORKS
142 West 15th Street, New York 11, N. Y.

THE RECORD REPORTS

(Continued from page 14)

provide modern facilities with a maximum capacity of 1500 beds. Facilities would include those for diagnosis and treatment. As planned, the setup is unusual in that the funds provided by Congress would be turned over to a private corporation, known as the Washington Hospital Corporation. Selection of the hospital site must meet approval of the National Park and Planning Commission, and the Federal Works Administration, upon termination of the war, is to acquire the site and to provide the buildings. Participating hospitals are to assume responsibility for one-third of the initial cost.

Planning Public Works

The Congress has taken other action in the field of construction. It has finally settled on an appropriation of $17,500,000 to assist states and their subdivisions in advance planning for public works. This was a compromise between the House figure of $5 million and the Senate figure of $35 million. It also has hurried through an authorization of $12 million for emergency flood control, and authorized use of unexpended balances for loans and grants to farmers as well as necessary priorities to rebuild lost or damaged buildings.

In regard to the $17,500,000 to aid in public works planning, the FWA explains that any non-federal public agency may apply for an advance to prepare drawings and specifications for work which it expects to construct within three years after the war. Besides state governments, FWA mentions cities, towns, townships, counties, school districts, water and sewer districts and other local units.

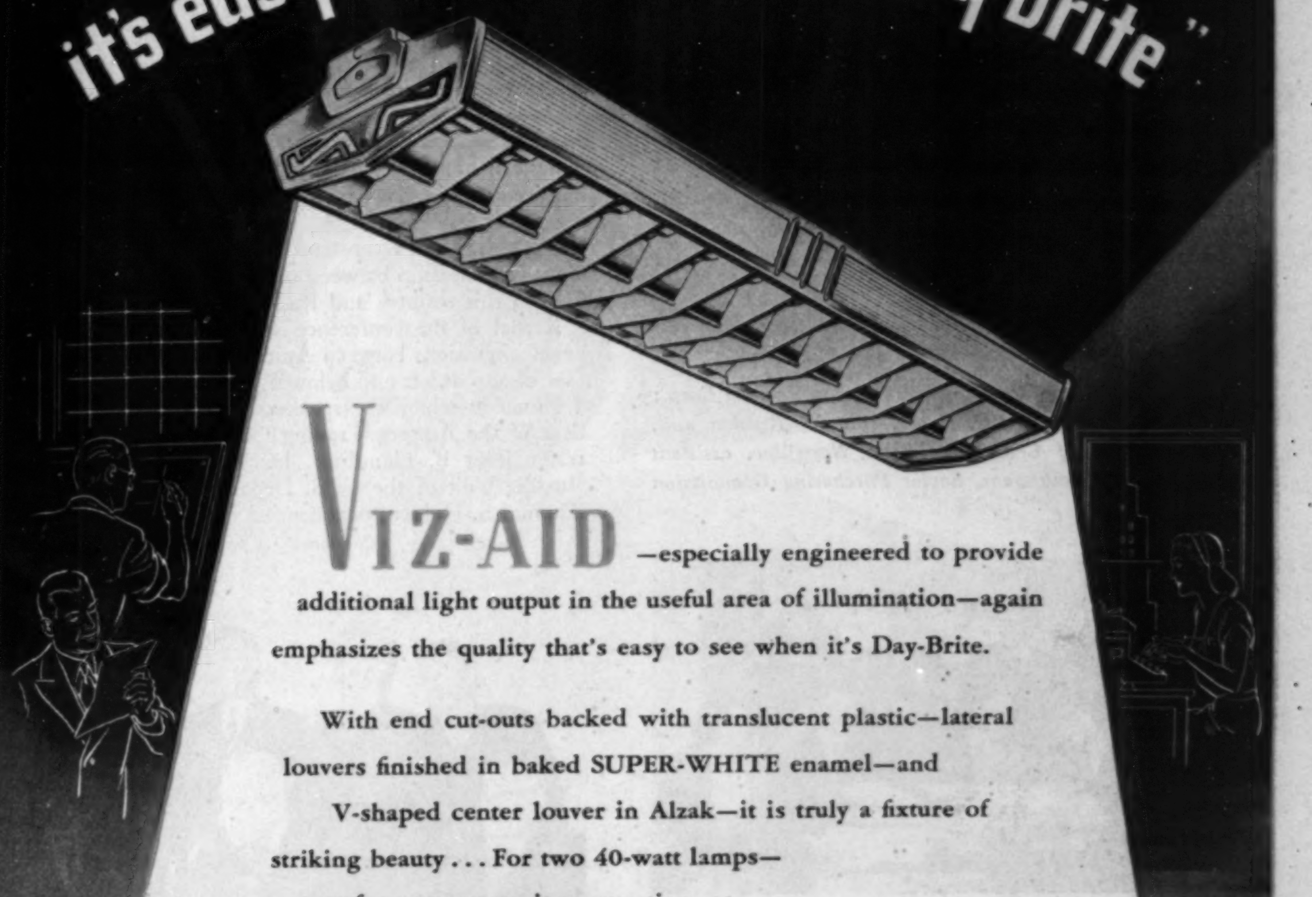
◆ ◆ ◆

TAX PROGRAM URGED

A seven-point postwar tax program to protect home ownership and to stimulate building enterprise has been proposed by the National Association of Real Estate Boards. Basic principles of the program are: redistribution of the tax load to relieve pressure at breakdown points, with limits on the extent to which local and state taxes may be superimposed upon real estate; limits upon the unchecked federal power of taxation upon all sources of income; fairer apportionment of state taxes for the support of municipal governments; trimming of federal tax demands on real estate owners in recognition of the unique burden borne by this class of taxpayers in paying the bulk of local government costs.

(Continued on page 20)

it's easy to see when it's "Day-brite"



VIZ-AID

—especially engineered to provide additional light output in the useful area of illumination—again emphasizes the quality that's easy to see when it's Day-Brite.

With end cut-outs backed with translucent plastic—lateral louvers finished in baked SUPER-WHITE enamel—and V-shaped center louver in Alzak—it is truly a fixture of striking beauty . . . For two 40-watt lamps—surface or suspension mounting, as single units or in continuous installations . . . Send for new VIZ-AID Bulletin 10-B.

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Reg. U. S. Pat. Off.
LIGHTING FIXTURES

Consult *your nearest Day-Brite Engineering Representative. Each is a qualified illumination engineer, whose business is to help your business.*

DAY-BRITE LIGHTING
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THE SIGN OF *Quality* LOOK FOR THIS LABEL
TMs Reg. U. S. and Foreign Countries

Nationally distributed through leading electrical supply houses

THE RECORD REPORTS *(Continued from page 16)*

AMERICAN-SOVIET BUILDING CONFERENCE

Under the auspices of the Architects Committee of the National Council of American-Soviet Friendship, and under the guidance of committee chairman Harvey Wiley Corbett, an American-Soviet Building Conference was held in New York on May 4-5. The purpose: "To initiate an exchange of building information between the two countries; to apprise American architects, engineers and producers of the trade requirements in the Soviet building field; to acquaint visiting Soviet specialists with American building developments relevant to Soviet reconstruction needs; to create understanding and friendship between professional men in the building field in this country and Russia."

Kernel of the conference was the series of four all-day panel discussions between American and Russian authorities (see photos at left and below). The conference opened with a dinner at which the speakers were M. M. Gousev, president of the Amtorg Trading Corporation; NHA Administrator John B. Blandford, Jr.; E. C. Ropes, chief of the Russian Unit of the U. S. Department of Commerce; and Thomas S. Holden, president of F. W. Dodge Corporation.

(Continued on page 128)

Left to right: M. M. Gousev, president, Amtorg Trading Corp.; Harvey Wiley Corbett; E. C. Ropes, chief of Russian unit, U. S. Department of Commerce; Peter Novojilov, assistant chief, Industrial Installations, Soviet Purchasing Commission

Mechanical Systems Panel. Seated: B. S. Romanov and I. A. Bulavin, engineers, S.P.C.; Vincent T. Manas, FPHA (chairman); B. N. Aleksandrov, engineer, S.P.C.; Miss Brondz, interpreter. Standing: George Hoffman; A. C. Bredahl; Robert Thulman, FHA; L. I. Smirnov and A. I. Vashchinin, engineers, S.P.C.

Prefabrication Panel. Seated: V. A. Myslin, architect, S.P.C.; Miss Orlova, interpreter; S. N. Dobrynin and P. N. Ershov, engineers, S.P.C.; Morris B. Sanders (chairman). Standing, first row: Clarence Farrier; Howard Vermilya; Gordon Lorimer; Marcelle Breuer; Tyler Stewart Rogers. Standing, second row: Eugene Clute; Henry Wright; Robert McLaughlin; Robert Davison; Jose Sert; Corwin Wilson

Building Industry Organization Panel. Seated: Max H. Foley; André Fouilhoux (chairman); Dr. B. G. Skramtaiev, director, Central Institute of Building Industry Research of the Soviet Union. Standing: Elwyn E. Seelye; William Joshua Barney; Jack Squires; C. Theodore Larson

Industrial Buildings Panel. Seated: Peter Novojilov; A. I. Alikhanov, engineer, S.P.C.; Roland A. Wank (chairman); V. I. Bogomolov, architect, S.P.C.; G. B. Panero. Standing: Simon Breines; Serge Chermayeff; J. P. H. Perry; N. P. Remizov, engineer, S.P.C.; C. P. Stolberg

A LOOK INTO THE FUTURE OF DECORATIVE PLASTICS!

Most architects who have used Formica, and therefore have had personal experience with it, see a large future for the material in after-the-war building.

They see a big expansion of its use in many of the applications in which it has already a record of many years of success. They are preparing to specify it for much used doors, such as those on train, bus and air terminals, counter paneling and counter tops, column covering, wainscot, toilet stalls, shelving and many others.

You will find it in excellent condition, looking almost as it did the day it was installed for these purposes, in some of the most prominent public buildings in the country.

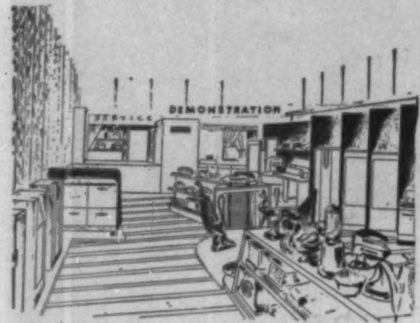
Formica is harder than marble and very durable under wear. It is non-porous and stain proof. It is available in a completely cigarette-proof grade for horizontal surfaces. There is a wide range of modern colors, patterns and "Realwoods" in which an actual veneer is introduced into the plastic sheet.

It resists all the various disasters that used to require frequent refinishing of surfaces. It is almost completely upkeep-free.

THE FORMICA INSULATION COMPANY, 4651 SPRING GROVE AVENUE, CINCINNATI 32, O.

FORMICA

FOR BETTER BUILDING



Plan of display space terminating in service and demonstration facilities

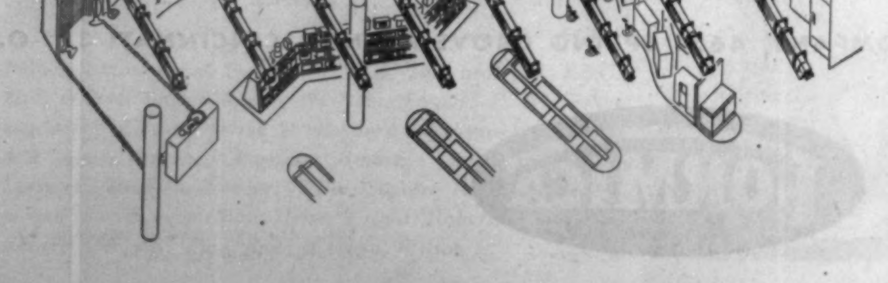
"MODERNEERING"

Architect Richard M. Bennett, well known store modernization consultant and professor of design in the Department of Architecture at Yale University, has been retained by Landers, Frary & Clark, manufacturers of Universal appliances, to create the basic plans of a complete store planning program under the copyrighted title "Moderneering," and to coordinate the recommendations and specifications of cooperating manufacturers who are participating in the program. Dr. O. P. Robinson, New York University School of Retailing, is also associated with the plan board in producing this flexible guide to store planning.

"The purpose of Moderneering," Prof. Bennett explains, "is to put forward-planning on a practical basis by giving every retailer something specific to work with, and to encourage him to make a start toward modernizing his present-day store. I recommend that local architects or building contractors should be engaged to relate the principles of Moderneering to specific store requirements . . ."

Store materials manufacturers cooperating with Universal in the development of the program are: Pittsburgh Plate Glass Co.; Congoleum Nairn; The Celotex Corp.; Sylvania Electric Products Inc.; the W. C. Heller Co.; the American Store Equipment Corp.; Devoe & Raynolds Co., Inc.; National Electric Sign Ass'n.; and the Carrier Corp.

Display space, showing arrangement of lighting



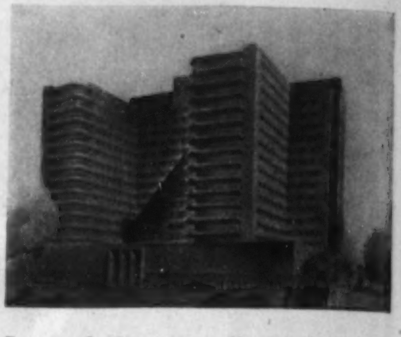
SOUNDPROOFING OFFICES

The degree to which it will be possible to minimize distracting noise in the postwar office is demonstrated by an experimental installation of Fiberglas sound and vibration absorbing materials in the tabulating machine room of Owens-Corning Fiberglas Corp.'s general offices at Toledo, Ohio.

Normal conversation and the use of telephones in the areas where the machines are in operation are permitted, company officials report, because of the high percentage of noise absorption attained. As a result, company engineers believe that similar acoustical treatment will eliminate the necessity of isolating tabulating rooms and their complex, constantly-operated machinery from the rest of the office.

The interior surface of the walls and ceiling of the room is ⅛-in.-thick hardboard nailed on wood studs. The board is perforated with small, inconspicuous holes. Behind the perforated hardboard, and between the studs, is a 3-in.-thick sheet of glass fibers, bonded and compressed to a density of 3.25 lb. per cu. ft., and faced with a wafer-like mat of bonded glass fibers 10 mils thick.

Sound waves pass through the perforated hardboard and are absorbed by the bonded glass fibers, resulting in a noise reduction factor estimated at 85 to 90 per cent. That is, when sound waves strike the walls and ceiling, only 10 to 15 per cent of their energy is reflected into the room. A further reduction in noise is achieved by placing mounts to isolate vibration under the legs of the machine. These reduce the transmission of vibration to the floor.



Proposed 18-story all-welded hospital

HOSPITAL CONSTRUCTION NOTES

All-Welded Hospital

What is believed to be the first all-welded hospital building in the country, according to officials of the Lincoln Electric Co., Cleveland, will be the 18-story Kahler Hospital to be erected at Rochester, Minn.

The framework of the new unit, it is proposed, will be designed as a continuous structure of beams and their connecting members, welding details of which are based on past analysis and conform to general engineering acceptance.

The hospital will cover an area of 150 by 270 ft., and will be built of welded steel with concrete floor slabs. Ellerbe and Co., St. Paul, Minn., are the architects.

Prefabricated Hospitals

Prefabricated housing, furnished by the Supply Division, Office of the Chief of Engineers, in packaged form, is supplying hospital space for a large portion of the Americans wounded in Southwest Pacific operations. Originally designed as barracks, these units lend themselves perfectly to hospital purposes, the War Department reports, each barracks becoming a ward.

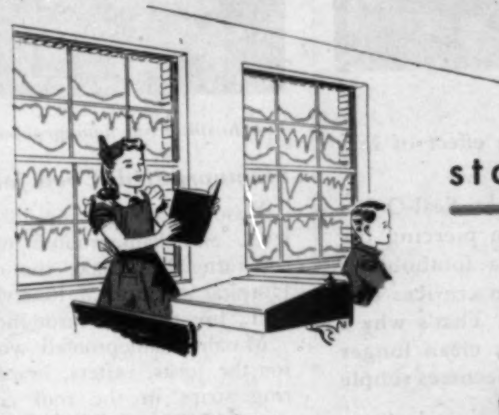
The standard designs, as developed by the Engineer Board at Fort Belvoir, are grouped in three classes—metal, precut and wood. There are two types of each design, tropical and insulated. The tropical design embodies such features as continuous windows, ventilators at the base of the sidewalls and eave overhang to carry off tropical rains. The insulated type, for colder climates, has a minimum of windows,

(Continued on page 24)

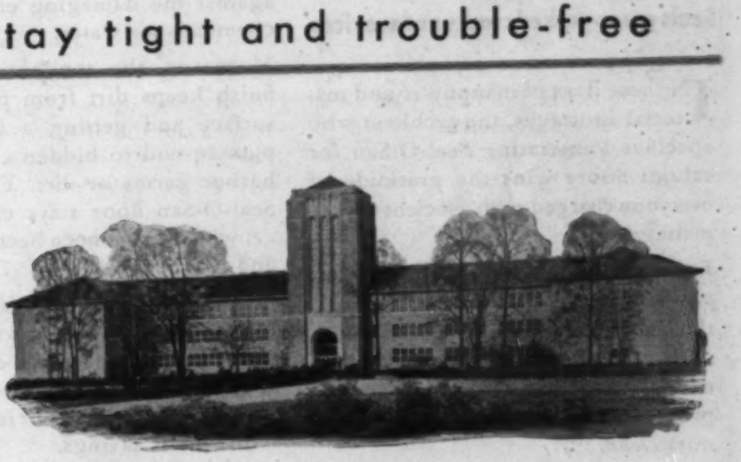
Because they are easier to open,

let in more light,

save maintenance cost,



stay tight and trouble-free



in school buildings *

Use Windows of **ALCOA ALUMINUM**

Send for this new "SPEC" BOOK

Fifteen years of actual use . . . highly successful use . . . have clearly demonstrated the merits of aluminum windows. In a number of large cities they are the standard window specified for all new school construction. The manufacturers of aluminum windows offer you a selection of types and styles that should meet any need your plans call for. The Aluminum Window Manufacturers Association has established standard specifications for these windows. To get their literature and the new 1945 specification book, write ALUMINUM COMPANY OF AMERICA, 1867 Gulf Building, Pittsburgh 19, Penna.

*Milo H. Stuart Memorial Building, Arsenal Technical Schools, Indianapolis, Indiana, Pierre & Wright, designing architects. A. A. Bohlen & Sons, supervising architects.

For Longer Wear and Easier Maintenance Specify Seal-O-San

Penetrating Seal-O-San locks out dirt Seals germ-packed cracks and crevices

In these days of manpower and material shortages, the architect who specifies Penetrating Seal-O-San for school floors wins the gratitude of everyone charged with efficient school management.

For here is a floor finish that has *proved* in more than 5000 schools that it doesn't break down. And with its longer wear comes easier and inexpensive maintenance, for a floor protected with a Seal-O-San finish *stays clean.*

Penetrating deep, Seal-O-San becomes part of the wood . . . leaves no surface film to chip or crack. Sealing the cells, it forms a protective finish that actually *reinforces* surface fibres. As a result, the rugged, durable seal offers protection not only against scraping feet but also against the damaging effect of ink, chemicals, or water.

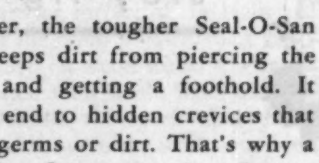
Moreover, the tougher Seal-O-San finish keeps dirt from piercing the surface and getting a foothold. It puts an end to hidden crevices that harbor germs or dirt. That's why a Seal-O-San floor stays clean longer . . . why maintenance becomes simple and inexpensive.

Seal-O-San leaves a beautiful, soft-lustre, natural finish—as smooth and polished as a fine piece of furniture. And the ease of application—with lambswool mop — brings worthwhile labor savings.

Your insistence on *beauty, longer wear,* and *simple maintenance* for school floors will inevitably lead you to Seal-O-San. Why not write for specifications and complete details—*today.*

THE HUNTINGTON LABORATORIES INC
DENVER • HUNTINGTON, INDIANA • TORONTO

PENETRATING
SEAL-O-SAN
PERFECT SEAL AND FINISH FOR WOOD FLOORS

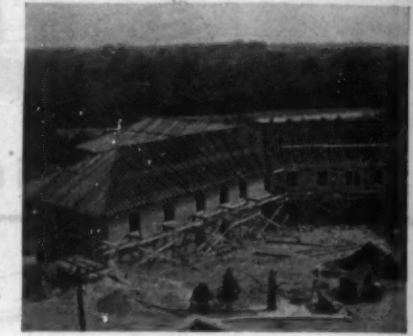


FOR BETTER BUILDING

(Continued from page 22)

gable or ridge ventilators and an interior lining of insulation.

Basic designs specified a building 20 by 48 ft., to be extended if necessary, to any length up to 120 ft. This was accomplished by packaging separately complete parts of a building to form an 8 by 20 ft. unit which could be inserted between the ends of basic buildings. These separate units, when required, also contain windows for both sides of the building or doors, when an exit is necessary.



New hospital has flameproofed wood roof

Flameproofed Wood for Safety

Masonry and tile up to the ceiling level, and flameproofed wood above the rafter line make the new Mercy Hospital addition at Rockville Center, L. I., fire resistant throughout.

Minalith-flameproofed wood is used for the joists, rafters, braces and furring strips in the roof construction, over 115,000 ft. of southern pine having been treated in American Lumber & Treating Co.'s Port Newark, N. J., plant for the purpose. Joseph Gunther of Valley Stream, L. I., designed the building; B. E. Langard of New York was consulting engineer. Basic specifications were drawn by the Public Buildings Administration, Emergency Operations Unit. The hospital is a private one, owned by the Catholic Church.

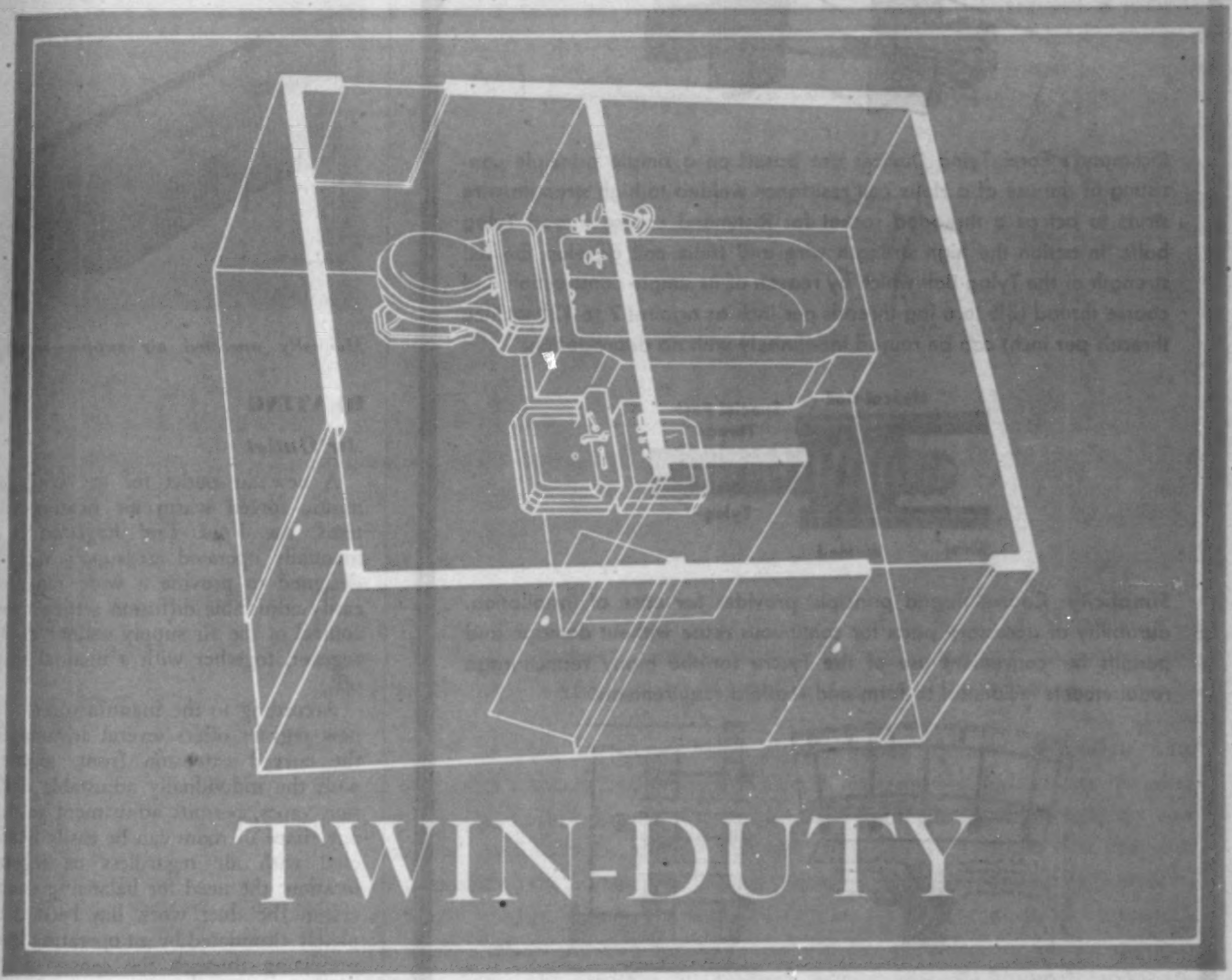
SENSITIZED PLYWOOD

Photographically sensitized plywood is now used by Boeing Aircraft Co. in its design and tooling program. Plywood templates are reproduced with a huge photo template camera by projecting glass plate negatives, previously made by photographing master layout drawings.

Both interior and exterior (waterproof) types of plywoods from ⅛ in. to 2 in. in thickness are used for wiring boards, templates, form blocks, instruction boards, display photographs, etc. Douglas fir and maple plywoods are

(Continued on page 26)

Clients will thank you for this new kind of bathroom...



Case "Twin-Duty" bathrooms provide the perfect answer to the popular demand that every square foot be made to *count.*

Through ingenious layouts of two compartments, the customary space is made to serve two people at the same time, with full privacy for each.

Featured prominently in "Save-for-a-Home" displays at leading Savings Banks, these bathrooms have already drawn wide praise for the "Twin-Duty" idea from many sources.

From our book of sketches comes this practical and compact design. One compartment has a tub, the other a water closet, while each has its own lavatory. Entrances from the hall and master bedroom, and inter-communicating door. Piping is all in one location.

W. A. Case & Son Mfg. Co.
Buffalo 3, N.Y. Founded 1853.

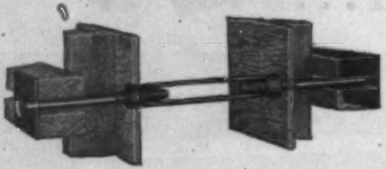
Style with

Case

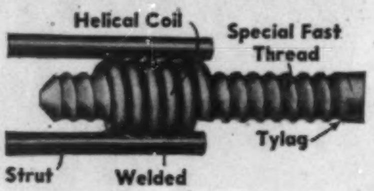
Lifetime Plumbing Fixtures

RICHMOND TYSCRU FORM TIE SYSTEM
Offers
Simplicity, Planning, Savings

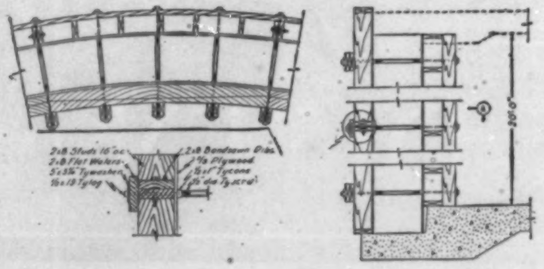
PLANNED FORM WORK BY RICHMOND ALSO SPEEDS CONCRETE CONSTRUCTION



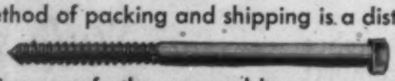
Richmond's Form Tying Devices are based on a simple principle consisting of the use of a Helix coil resistance welded to high strength wire struts to act as a threaded socket for Richmond coarse thread Tylag bolts. In action the high strength wire and Helix coil develop the full strength of the Tylag Bolt which by reason of its simple construction and coarse thread (3½ to 6 lag threads per inch as against 7 to 12 machine threads per inch) can be reused indefinitely with no depreciation.



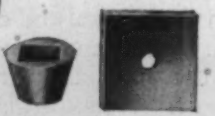
Simplicity: Coarse thread principle provides for ease of installation, durability of accessory parts for continuous reuse without damage and permits for convenient use of the Tyscru for the many reanchorage requirements incidental to form and scaffold requirements.



Planning: Richmond offers — consultation on best types of forms and ties to be used for a given job; estimates on job requirements and recommendations on specific form problems. All of this is without obligation. Richmond's method of packing and shipping is a distinct service in itself.



Savings: Savings are further assured because Richmond reusable Accessory devices; known as "Working Parts," are furnished RETURNABLE FOR FULL CREDIT —no rentals charged.



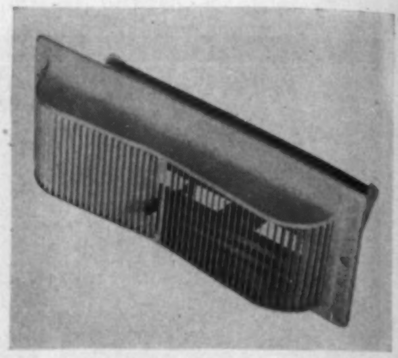
Form-Ty Engineering Guide on Request

RICHMOND SCREW ANCHOR COMPANY, INC.
816 LIBERTY AVENUE · BROOKLYN, NEW YORK
MANUFACTURING SINCE 1911

FOR BETTER BUILDING

(Continued from page 24)

used most commonly, and are sensitized with a liquid-type photographic emulsion directly on either the unpainted or painted surfaces of the wood. A preliminary coat of white paint improves the contrast and makes reading easier.



Manually operated air supply register

HEATING

Air Outlet

A new air outlet for use with domestic forced warm air heating systems, the *Vol-U-Trol Register,* is a manually operated air supply register designed to provide a wide range of easily adjustable diffusion settings, and control of the air supply volume at the register, together with a manual shutoff.

According to the manufacturers, the new register offers several advantages: the curved extension front, together with the individually adjustable diffusion vanes, permits adjustment so that any shape of room can be easily blanketed with air regardless of register location; the need for balancing dampers in the duct work has been completely eliminated by an operating lever projecting through the center of the register to change the amount of opening of the volume control blades, thus placing control of the air supply volume at the register; an adjustable lock is mounted so that the register can be closed by means of the operating lever and then be reopened to the previously determined point without further adjustment; and turning vanes are provided to insure even distribution of air over the register face.

Plans to market the Vol-U-Trol Register through the manufacturing company's regular distribution channels are completed, but held pending until the war is over or until materials are made available by the government. Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8.

(Continued on page 124)

School for Democracy

✦ The future of democracy lies in its schools! Not only because the school produces a literate citizenry, but because it is here that democracy is experienced. The free schools of America are the meeting ground of all races, creeds and colors, where all citizens have equal rights and privileges irrespective of financial, social, religious or other status. Mutual respect for others as individuals, as persons, as fellow human beings—which is the underlying principle of true democracy—can be developed in the public school as in no other institution. Supported by all, open to all, it is the very heart of democracy.

✦ Democracy itself is therefore a major responsibility of the educators and school administrators. Theirs is the task of producing an intelligent, healthy, trained, responsible, tolerant, understanding electorate. Every possible aid must be given them to facilitate and implement their basic task. And the school building, plant and grounds are not the least of these. Excepting only the competent, inspiring, and well-paid teaching staff, the school plant is the most important element. It is the environment and the tool for their most effective work.

Later

✦ But there is a growing realization that the value of the school to the community, to the nation and to democracy itself is not, and should not be, limited merely to the activities of the children and youth of the country. The school should and can be the center of community life. Education is a continuing process "from cradle to the grave." The use of the school should not stop with adolescence, nor should it be a nine-to-three affair. The cultural and recreational life of the community can and should be centered in the school and its benefits enjoyed fourteen hours a day—winter, summer, spring and fall. The community's investment in the school plant is best justified by the intensity of the use of its facilities.

✦ So schools today are being planned wisely for maximum all-day and evening use. School boards and citizens alike are realizing the possibilities of using to the utmost the auditorium, the gymnasium, the pool, the library, the shops and the classrooms. Architects are so planning and arranging the facilities that they can be made available to the public, and unused portions closed off temporarily. Lectures, forums, debates, rallies, dramatics, musicals, dances, sports, games, group meetings, hobbies, adult studies—all, and more, are, or can be, provided for in the modern community school. The facilities can be used without either additional capital investment or conflict with the teaching program.

✦ The school no longer can be thought of as a nine-to-three repository for children—nor the school tax in terms of a minimum expenditure for teaching the three R's. The modern community school is the cultural, recreational and social center for the neighborhood, young and old, rich and poor. As such, it is the bulwark of American Democracy. Let architecture function to this end—and the design express this ideal!

Kenneth K Stowell

EDITOR

NEIGHBORHOOD SCHOOLS

This is the second time within two years that Architectural Record *has engaged in editorial collaboration with* The Nation's Schools *on the all-important subject of new school planning for neighborhood use. Encouraged by the previous result, the two publications are again placing before architects and school men an interchange of opinions and useful information.*

Architectural Record's

Building Types Study

Number 102

in collaboration with

The Nation's Schools

WHAT EDUCATORS DESIRE

By Ernest O. Melby, President, Montana State University

By "school" in the title of this article we mean an institution and an organization designed to facilitate neighborhood education. This school will not attempt to house or to carry on all the educational activities of a community. It will carry on those educational activities which it can provide more efficiently than they can be provided by other agencies in the community. A large share of its space will be given over to the education of children, but by no means all of it, for this school plant will serve as a headquarters for adult education as well as for the education of children. This school building will house its own education activities, but it will also provide space for the educational activities that can be conducted by other community agencies. It will provide space, also, for the direction of the total educational program of the community. It is the community's educational nerve center.

We now have a setting in which we can proceed to define the ideal neighborhood or community. It is a group of people living together in such ways as to promote the constant growth and development of all members of the community regardless of age. In the same way as a home exists for the children, it exists for the parents. In the same way as a home is an environment for the children and their parents, the neighborhood is an environment for all who live in it. A good neighborhood, therefore, educates all its members. When the good neighborhood sets out to develop its neighborhood educational program it must, accordingly, provide an organization and facilities for the education of all its members.

Often we have thought of adult education as a compensation for lack of educational opportunities in childhood and youth or as a means of saving democratic institutions by furthering an informed citizenry. It may and should do all of these things, but our biggest reason for carrying on adult education lies in the fact that without it we cannot educate the children effectively, and we cannot attain the ideal of a neighborhood which constantly seeks the improvement of its life.

The modern neighborhood educational program is thoroughly grounded in the principles of American democracy. It is based upon the conceptions of the worth and dignity of all human beings. It looks upon the good life as being one which is good for all human beings. It is a life for people, not for schools or teachers or other institutions or functionaries. It is a life of plural goods, a life which ministers to the many-sided nature of the human organism. This means that the program of the neighborhood school must include a great deal of music, of art, of literature, of recreation and wholesome social living.

The ongoing life of the community becomes one of the greatest sources of materials for a neighborhood school. Since the school seeks the constant improvement of the life of the neighborhood, it becomes doubly important that those who live in the community become aware of the nature of the community and its needs. The neighborhood should constantly be studied as it is in terms of what it may become. Examples for such continuing studies will be found in neighborhood housing, improvement in streets and transportation, recreational facilities, problems of preventing crime and delinquency and of providing adequate educational facilities. The neighborhood educational program thus seeks the constant growth and development of the community not only through the medium of the education of the children but through the constant education and growth of the adults of the community.

We can now turn our attention to the general characteristics of the neighborhood educational plant. First of all, 1 it must be safe and healthful. It should employ the best scientific knowledge concerning heating, lighting and ventilation. Under no circumstances should children be permitted to work in inadequate light or under undesirable temperatures or conditions of atmosphere. The entire structure should be so constructed as to prevent as many accidents as possible. Proper stairways, floor surfaces, exits and fireproofing are indispensable elements in construction. Standards of sanitation should be the very highest, and all construction and surfaces should facilitate cleanliness and ease of care.

2 In the second place, the plant should be educationally efficient. Since the neighborhood school is to serve the entire community, it should be planned with the community service in mind. Auditoriums should have easy exits for the public as well as for school children. Satisfactory rooms should be provided for large and small public gatherings, with facilities for the preparation and serving of food. Offices should be adequate in size and appropriate in appointment for the receiving of visitors, and easily accessible to them. Rooms should be provided for community use in such areas as art, music and home arts. Libraries and reading-rooms should be adequate, beautiful and comfortable. Special rooms should be provided for use by officers and workers in community agencies for purposes of conferences and planning and conduct of work in adult education.

3 Finally, the plant should be beautiful in exterior and interior design, in decoration, furnishings and all appointments. Education must concern itself more definitely with the emotions of both children and adults. Concepts of beauty and art can best be taught by example and by subtle suggestion.

Each schoolroom should teach principles of design, of color and of beauty of arrangement and appointments. Schoolroom furniture should be chosen for its beauty as well as for its utility. Pictures should harmonize with the room, the furnishings and the decorations. There should be variety of color and design and variation from room to room in line with the various educational purposes for which rooms are used.

Beauty in the building and its interior should be matched by beauty of landscaping and care of school grounds. Landscaping is important not only to provide an esthetic setting for the educational plant, but can also be utilized effectively to bring children into closer contact with nature. The entire building and grounds should be an example of beauty and good design in architecture and landscaping.

Our neighborhood school building should be designed to facilitate the education of total personalities and should adequately house that kind of educational program. Since teachers should do much individual work with children, each teacher should be provided with a satisfactory office that can be attractively equipped so as to be an inviting place for both children and parents. Each teacher should have both a general classroom and a workshop. This makes possible the conduct of varied activities simultaneously and makes it unnecessary to injure the better type of schoolroom furnishings with the damaging effects of construction work or painting or other types of art. The provision of a workshop also makes it possible for pupils to leave unfinished work from day to day, and thus simulate studio or workshop conditions.

Adequate provision will be made in the neighborhood school for the enjoyment of music. The auditorium should be provided with acoustical treatment, comfortable seats and proper control of lighting in order to make for the most satisfactory conditions for the enjoyment of concerts and other musical performances. A well-insulated listening room should be provided with a good phonograph and records for the enjoyment of recorded music. At least one large studio should be provided for the graphic arts and a shop for industrial arts, as well as adequate quarters for home arts.

Provision must be included for both school and community health. Adequate playground space, a usable gymnasium, quarters for the school nurse and school physician are essential.

Even with all the features and advantages that have been pointed out above, the neighborhood school will not house anything like the entire educational program for the neighborhood, nor even all of the activities primarily designed for children. For education, to be effective, must be carried beyond the walls of the school building into the life of the community. There will be frequent field trips and excursions; many problems and materials will be studied in other community agencies and in other parts of the school district if it is a large city or a larger rural community. But the neighborhood school is a home base from which educational programs are planned, directed and conducted. Broadly speaking the entire city or school district, certainly the entire neighborhood, is a laboratory for educational activity.

Since both the neighborhood and the school are in constant process of growth and change, the educational plant should be flexible in design and arrangement. Movable partitions—dual-purpose rooms—and plans which permit additions are all features to be carefully considered and provided wherever desirable and practicable.

Flexib of desig

IV

Practically all of the requisites for a good neighborhood school pointed out above apply to a school building regardless of its size, whether it be a one-teacher rural school or a more elaborate structure for a city neighborhood or a large rural consolidated school. Regardless of size, this neighborhood school should be safe and healthful, educationally efficient and beautiful in design, in structure and in appointments. Regardless of size, it should be a tool for the achievement of a modern concept of neighborhood education. Regardless of size, it should be an architectural expression of the best thought and feeling of the neighborhood.

IV

WHAT ARCHITECTS ARE SUPPLYING

By Douglas Haskell, Associate Editor, Architectural Record

MAJOR change is always slow, and yet observation of even the most casual kind will reveal a most gratifying advance since 1940 in the art of school design for neighborhood use. If measurement is made in crude terms of gross area alone, it will be found that space for activities which serve the community even more than they serve traditional education may occupy up to half of the total building volume, and that nearly all the ground area is developed for dual use in a good many of the better examples.

Before analyzing a chosen group of new designs in detail, in order to see how well they may have met the requirements ably outlined in behalf of educators by Dr. Melby, it may be pertinent to remark on an aspect which is peculiarly the architect's own concern although Dr. Melby flatteringly takes it for granted—namely, efficiency of organization. The complicated new elements demanded for neighborhood service are thoroughly disruptive to the old simplicity of school plans, which consisted mainly of two rows of classrooms facing one another across a corridor terminated by boys' and girls' toilets and drawing its daylight from the central stairwell.

Proper organization recognizes, to begin with, that facilities for community use are most of them likely to be noisy. These elements are therefore made the hands and feet of the school plan, at terminal positions where noise may be dissipated on three sides to the out-of-doors, and buffered from classrooms on the fourth, interior, side by means of closets, store rooms, or other noise absorptive areas.

If the examples set before us on succeeding pages are typical, then it may be said that the custom of placing the gymnasium and auditorium in a central block well inside the school, to meet compositional requirements arising out of the augmented height, is swiftly diminishing. In counter-distinction, community facilities of a quiet kind, rooms such as medical clinics or an occasional community library (see especially the Litchfield School on page 78), are placed appropriately close to the entrance and as near as possible to the center of the plan. The rambling plans coming into favor depend on technical progress in such features as public address systems of intercommunication.

Passing to Dr. Melby's suggestions in detail, we find not only that public areas have been provided, as he suggests, with ready entrance from the outside as well as from the school interior, but also that the serving and preparation of food, which so often accompanies social functions, has been managed by many architects with distinguished skill. The kitchen in the best plans is so placed as not only to be readily and inobtrusively accessible for deliveries, but also to be convenient in several directions, alike to the school cafeteria, to the multi-purpose community room, or to an auditorium or gymnasium. Not often in the past has the thought of food evoked in the mind of the architect the thought of music; but now we find more than one designer going beyond Dr. Melby's immediate program by supplying an orchestra alcove in the dining space, permitting its conversion into a neighborhood ballroom. A particularly pleasant idea in entertainment is expressed in the provision, in the Rhinebeck school (seen across-page) of an outdoor dining terrace off the cafeteria; this will no doubt serve neighborhood social events in the heat and quiet of summer even more extensively than it will serve "school" affairs in spring and fall. Speaking of food, an especially interesting plan in our series is that for the rural school at Litchfield, Michigan, which not only is used as a combined elementary school, high school, and vocational school, but which also places some of the "vocational" equipment at the service of the neighborhood, notably the cannery which is connected with the agricultural department, along with metal and woodworking shops.

Dr. Melby makes special mention of expanded use of facilities for music and the visual arts. To a marked degree music rooms have been successfully grouped around auditoriums, and a separate band room has in one instance (Lakeside School, page 80) been conjoined with the athletics wing, which again is usable by the public.

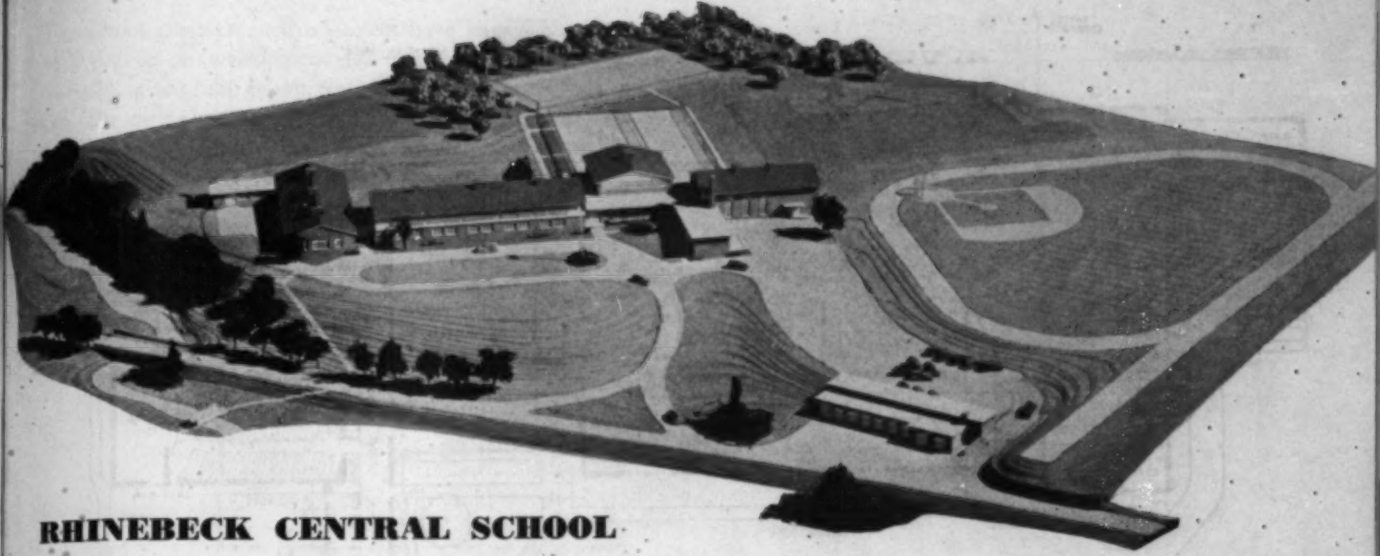
With respect to classrooms, too, development has been rapid. Judging by results, school boards do not all fully agree that activity workshops should be added to *every* classroom, and a dual system seems to be in greater favor, which employs the so-called Winnetka arrangement with separate shop space auxiliary to rooms serving younger children, while other classrooms have only a sink or an activity alcove, on the theory that the older pupils will move into special shop areas tooled for more advanced skill. A strong trend is discernible toward the square classroom yielding inexpensive free floor space no matter how seating is arranged; this has evoked some ingenious new solutions in daylighting and the correlation of artificial light.

Outdoor classrooms are ever more skilfully capitalized. By providing innumerable quick exits they add to that element of safety which is Dr. Melby's proper concern.

Although no school board has apparently been willing as yet to appropriate funds for the proposed separate consultation office for each teacher, at least one of our examples (Creston School, page 91) supplies a handsome joint teachers' conference room, where they may discuss children's problems with parents.

Dr. Melby's request that the educational plant be made flexible in design and arrangement has been met with special felicity in schools such as the San Carlos, California example seen on page 94. Here the entire floor and the ceiling with its lighting grid are built continuously as in loft space, and subdivision is made easy with detachable partitions and easily movable storage furniture; essentially the same idea is also sketched by Chicago architects in Time-Saver Standards (page 117).

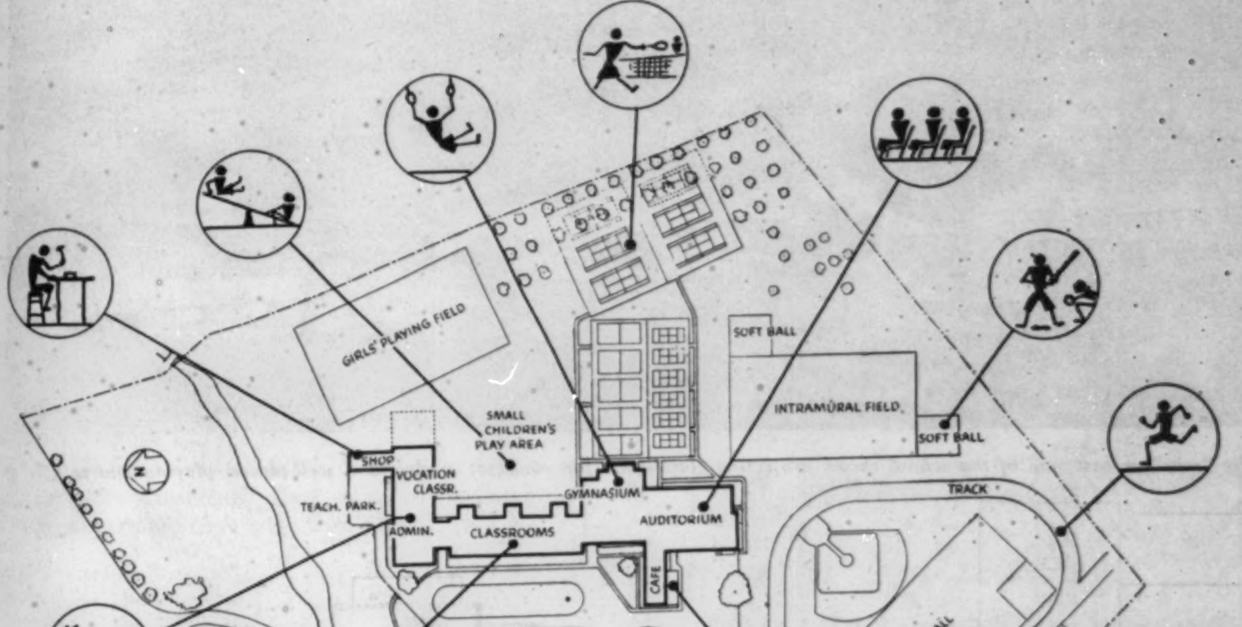
All these detailed expedients, arrangements, and innovations add up to an entirely revised school concept, of education of, by, and for, the community as a whole.



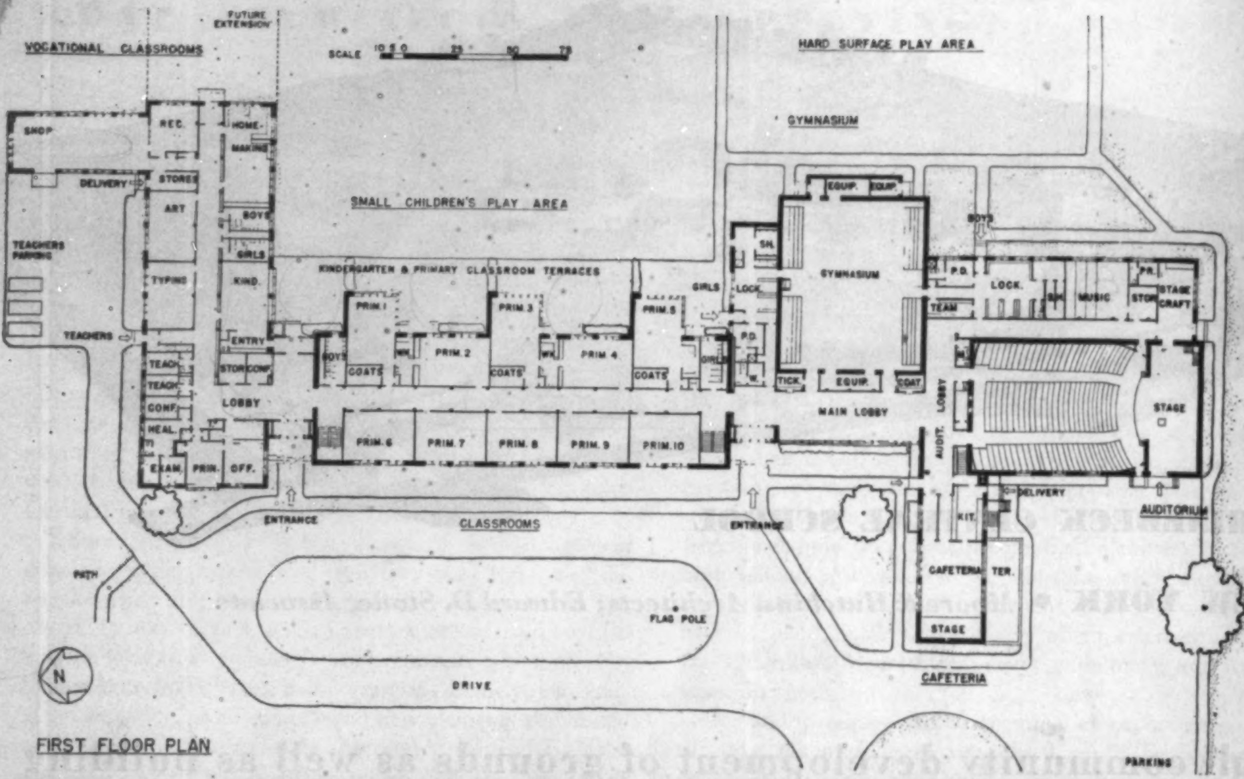
RHINEBECK CENTRAL SCHOOL

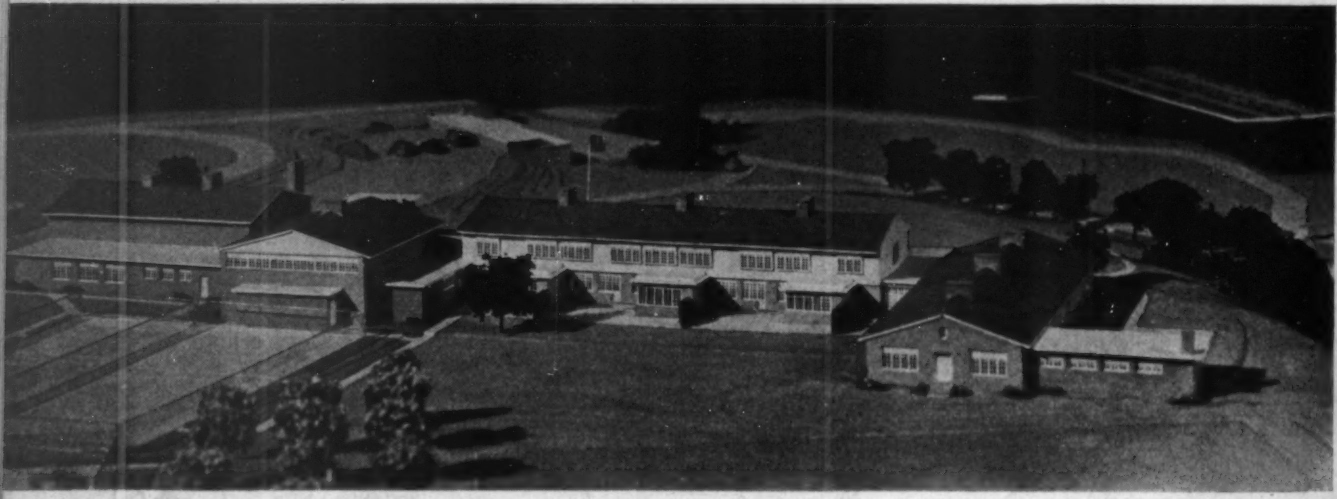
NEW YORK • *Moore & Hutchins, Architects; Edward D. Stone, Associate*

Full community development of grounds as well as building

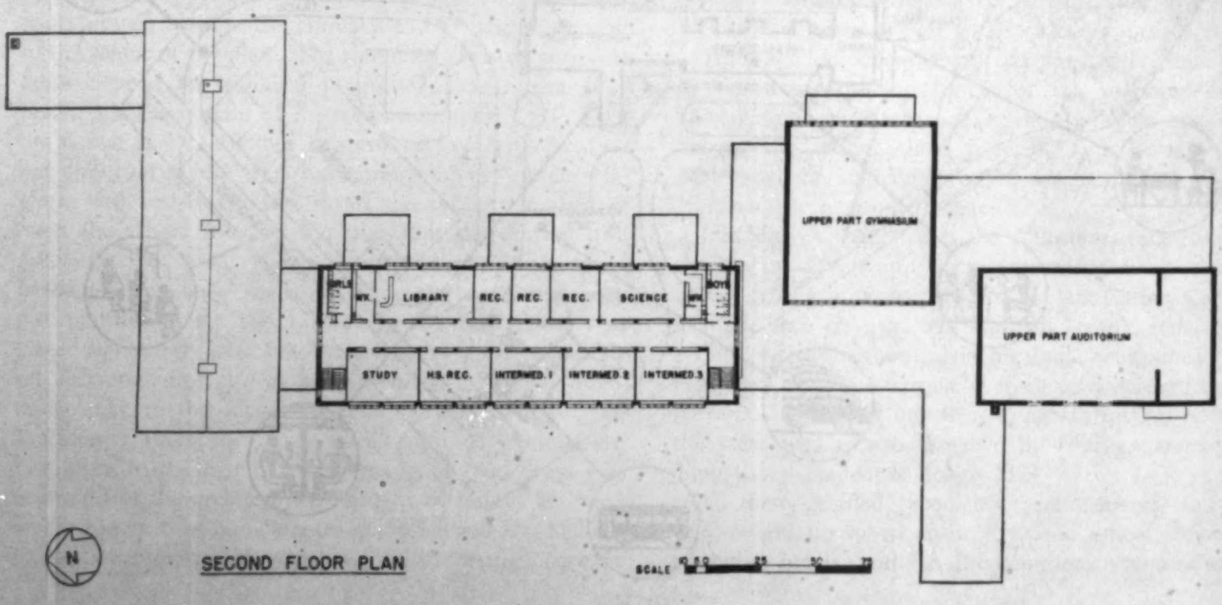

GIRLS' PLAYING FIELD
SMALL CHILDREN'S PLAY AREA
SOFT BALL
INTRAMURAL FIELD
SOFT BALL
SHOP
VOCATION CLASSR.
TEACH. PARK.
ADMIN.
CLASSROOMS
GYMNASIUM
AUDITORIUM
CAFE
TRACK
FOOTBALL
FUTURE BLEACHERS
PARKING SPACE 110 CARS
GARAGE
N

Change plan

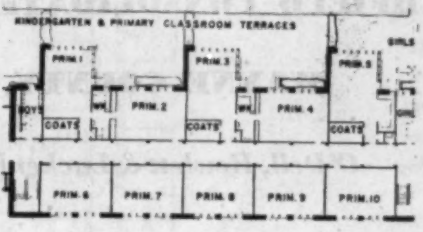

VOCATIONAL CLASSROOMS
FUTURE EXTENSION
SCALE 10 5 0 25 50 75
HARD SURFACE PLAY AREA
GYMNASIUM
SHOP
REC.
HOME-MAKING
DELIVERY
STORES
ART
SMALL CHILDREN'S PLAY AREA
BOYS
GIRLS
TEACHERS PARKING
TYPING
KIND.
KINDERGARTEN & PRIMARY CLASSROOM TERRACES
PRIM. 1
PRIM. 3
PRIM. 5
TEACHERS
ENTRY
STOR.
CONF.
BOYS
COATS
WK.
PRIM. 2
COATS
WK.
PRIM. 4
COATS
TEACH.
TEACH.
CONF.
HEAL.
EXAM.
PRIN.
OFF.
LOBBY
PRIM. 6
PRIM. 7
PRIM. 8
PRIM. 9
PRIM. 10
SH.
GIRLS
LOCK.
P.D.
GIRLS
W.
EQUIP.
EQUIP.
GYMNASIUM
TICK.
EQUIP.
COAT
MAIN LOBBY
BOYS
P.D.
LOCK.
SH.
MUSIC
PR.
STOR.
STAGE CRAFT
TEAM
AUDIT. LOBBY
STAGE
DELIVERY
AUDITORIUM
KIT.
CAFETERIA
TER.
STAGE
CAFETERIA
ENTRANCE
CLASSROOMS
ENTRANCE
PATH
FLAG POLE
DRIVE
PARKING
N
FIRST FLOOR PLAN



The "rear" or east side of the school shows projecting classrooms for youngest grades, and well-placed playing courts

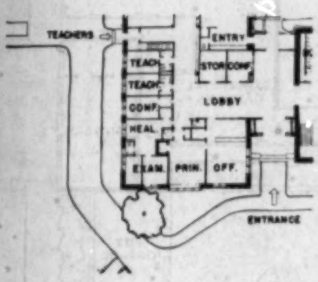

UPPER PART GYMNASIUM
GIRLS
WK.
LIBRARY
REC.
REC.
REC.
SCIENCE
BOYS
UPPER PART AUDITORIUM
STUDY
H.S. REC.
INTERMED. 1
INTERMED. 2
INTERMED. 3
N
SECOND FLOOR PLAN
SCALE 10 5 0 25 50 75

The school grounds in this project have received an unusual degree of development for neighborhood use, and the building has been organized with thoughtful thoroughness. The main parking lot is happily placed close to both the playing field and the public rooms. Hard-surfaced playing fields are in direct contact with the gym. The building masses have gained in interest and intimacy by being allowed to conform to use; and the free general arrangement will make it easier to extend and adapt the building.


KINDERGARTEN & PRIMARY CLASSROOM TERRACES
PRIM. 1
PRIM. 2
PRIM. 3
PRIM. 4
PRIM. 5
GIRLS
BOYS
WK.
COATS
COATS
COATS
PRIM. 6
PRIM. 7
PRIM. 8
PRIM. 9
PRIM. 10

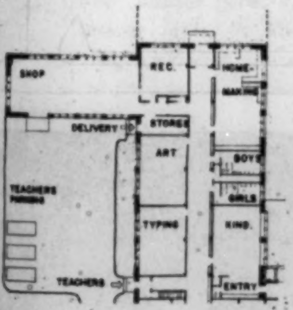
Classrooms -two kinds

The school has two general types of classrooms. High school rooms are rectangular, and lockers are in the corridor alongside. Rooms for the higher elementary grades are very similar, except that lockers are inside, along the rear of the room. Both are designed to maximum width conformable with the daylighting requirements of New York State. Primary grades are interestingly handled, with alternate units projecting outward to form sheltered outdoor terraces, and to permit the work alcoves and large coatrooms especially needed for small children.


TEACHERS
TEACH.
TEACH.
CONF.
HEAL.
EXAM.
PRIN.
OFF.
ENTRY
STOR.
CONF.
LOBBY
ENTRANCE

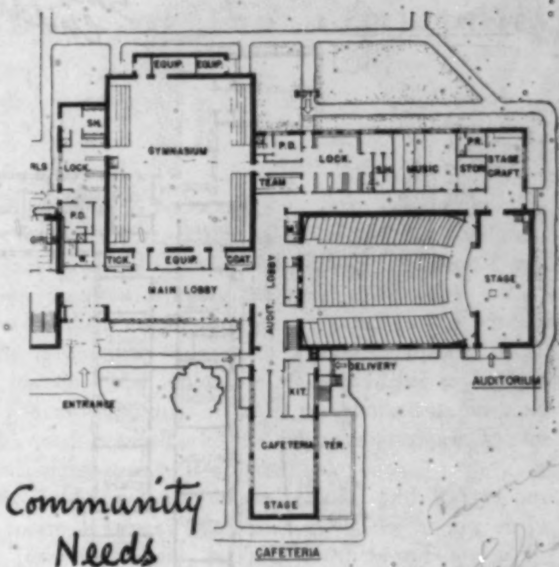
Administrative

The administrative unit is correctly placed, close to the entrance, and has the special feature of providing several teachers' conference rooms, where children's problems may be discussed with parents. These rooms are convenient to a teachers' entrance from a separate parking lot.


SHOP
REC.
HOME-MAKING
DELIVERY
STORES
ART
BOYS
GIRLS
TEACHERS PARKING
TYPING
KIND.
TEACHERS
ENTRY

Vocational or "Noisy"

The shop has a correct long shape, and unusual care has been exercised in securing straight-line delivery for its bulky materials. The kindergarten has a separate entrance all its own, so small children need not use corridors, and can avoid struggling with the older children.

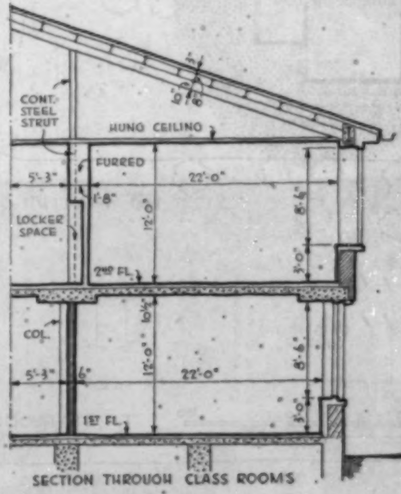

EQUIP.
EQUIP.
BOYS
SH.
GYMNASIUM
GIRLS
LOCK.
P.D.
TICK.
EQUIP.
COAT
MAIN LOBBY
P.D.
TEAM
LOCK.
MUSIC
STOR.
STAGE CRAFT
AUDIT. LOBBY
STAGE
DELIVERY
AUDITORIUM
ENTRANCE
KIT.
CAFETERIA
TER.
STAGE
CAFETERIA

Community Needs

Community
Library

Community needs are met in a well knit group of units. Delivery is easy both to the kitchen and the auditorium. The kitchen can easily serve the cafeteria, the gymnasium, or the auditorium. The gym can be divided down the center for simultaneous separate use by boys and girls, with direct approach for both from their respective locker rooms. Music rooms and the stagecraft room are well related to the auditorium, and there is a separate small stage in the cafeteria. The entire group can be easily closed off from the classroom section.

Outdoor
recreat.


CONT. STEEL STRUT
HUNG CEILING
FURRED
5'-3"
22'-0"
1'-8"
12'-0"
8'-4"
LOCKER SPACE
3'-0"
2ND FL.
COL.
10 1/2"
12'-0"
8'-6"
5'-3"
6"
22'-0"
3'-0"
1ST FL.

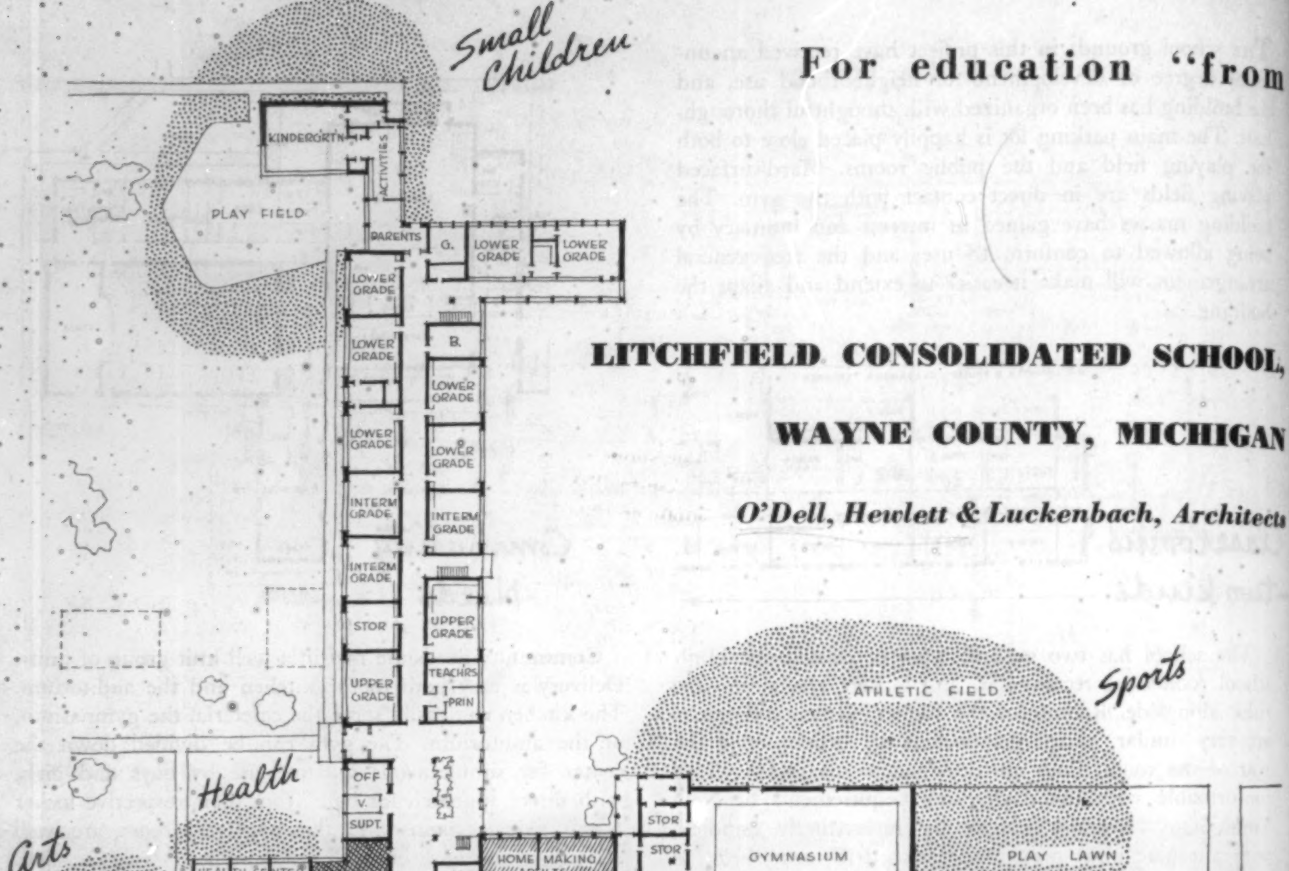
SECTION THROUGH CLASS ROOMS

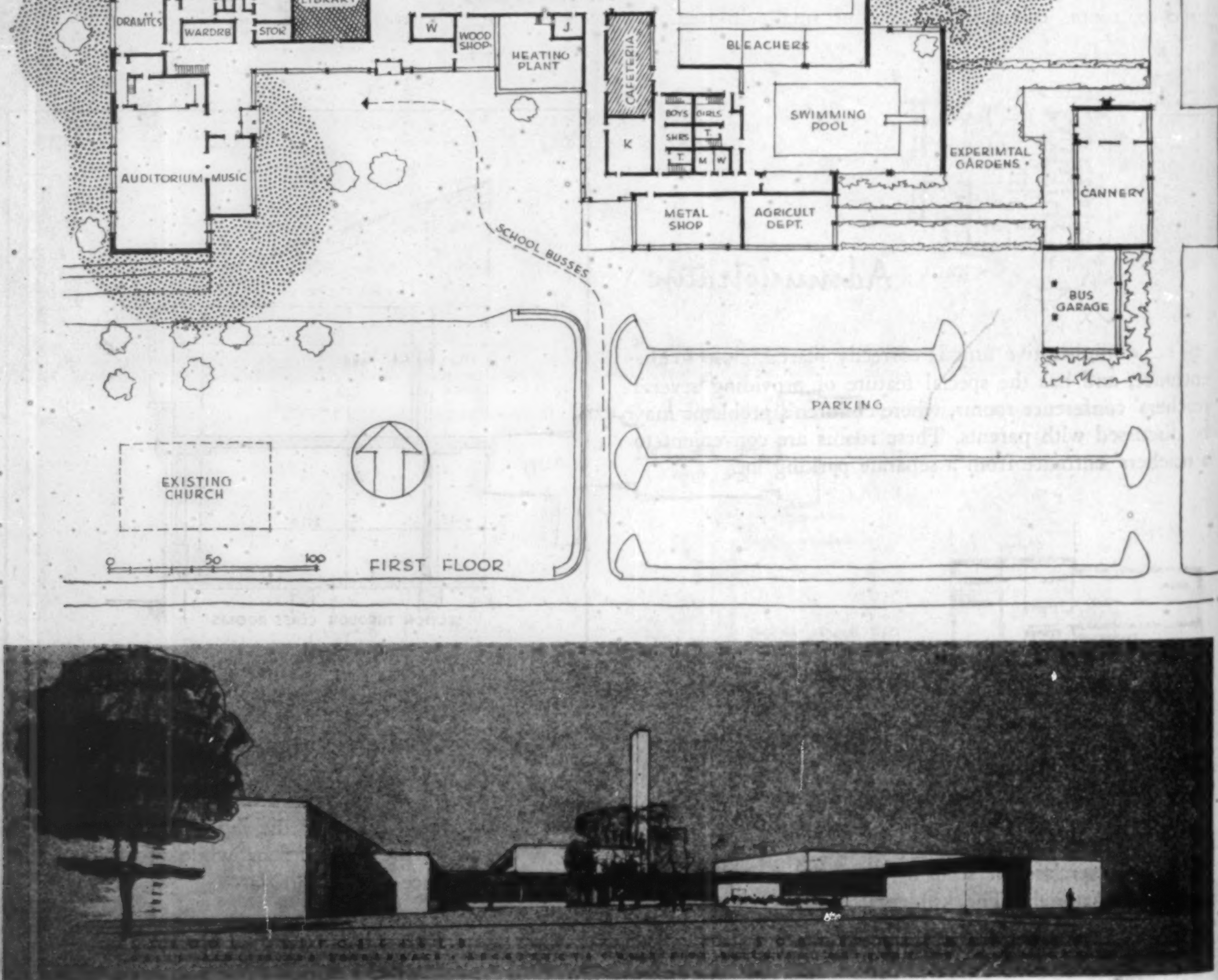
In its economical, reinforced concrete-frame structural system, the Rhinebeck School makes a departure for New York State. The projection of the second floor out beyond the first is explained by the desire to have full 22-foot width for the high school classrooms on the second floor while providing locker space on the corridor.

For education "from

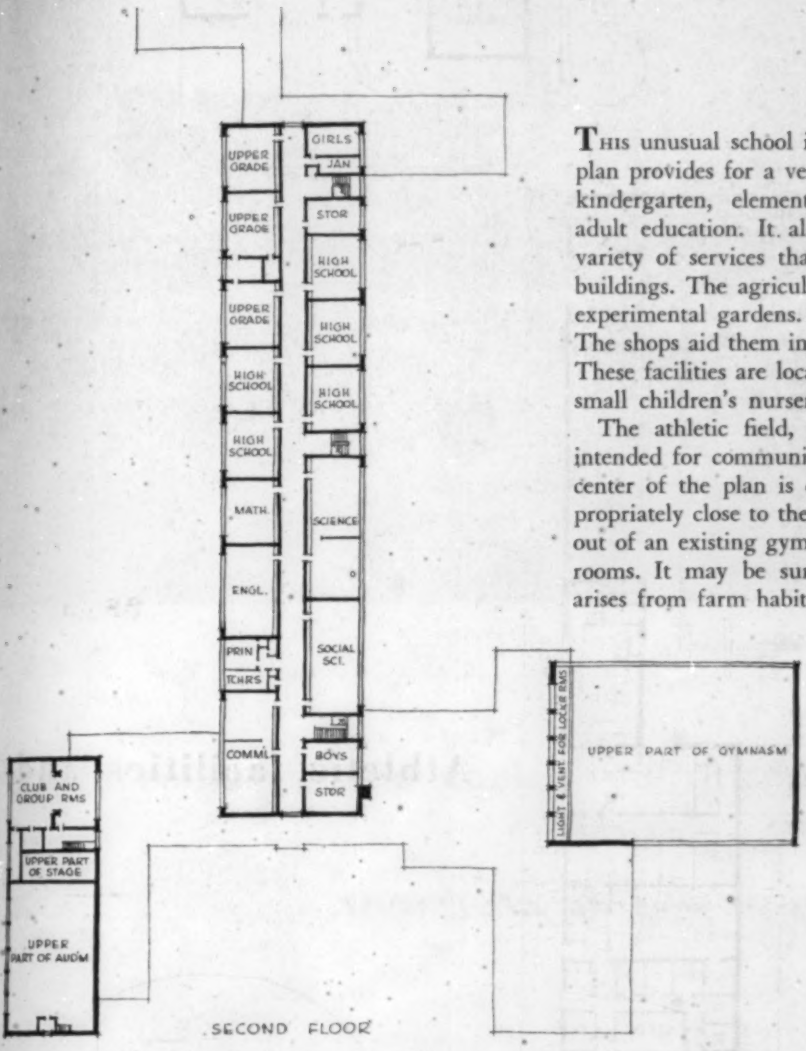
LITCHFIELD CONSOLIDATED SCHOOL, WAYNE COUNTY, MICHIGAN

O'Dell, Hewlett & Luckenbach, Architects


Small Children
KINDERGRTN
ACTIVITIES
PLAY FIELD
PARENTS
G.
LOWER GRADE
LOWER GRADE
LOWER GRADE
B.
LOWER GRADE
LOWER GRADE
LOWER GRADE
LOWER GRADE
INTERM GRADE
INTERM GRADE
INTERM GRADE
STOR
UPPER GRADE
TEACHRS
PRIN
UPPER GRADE
OFF
V.
SUPT.
Health
Arts
HEALTH CENTER
LIBRARY
DRAMTCS
WARDRB
STOR
HOME MAKING ADULTS
M
W
WOOD SHOP
J.
HEATING PLANT
AUDITORIUM
MUSIC
Sports
ATHLETIC FIELD
STOR
STOR
GYMNASIUM
PLAY LAWN
CAFETERIA
BLEACHERS
BOYS
GIRLS
SHRS
T.
T.
M
W
SWIMMING POOL
K
EXPERIMTAL GARDENS
CANNERY
METAL SHOP
AGRICULT DEPT.
SCHOOL BUSSES
BUS GARAGE
PARKING
EXISTING CHURCH
0
50
100
FIRST FLOOR



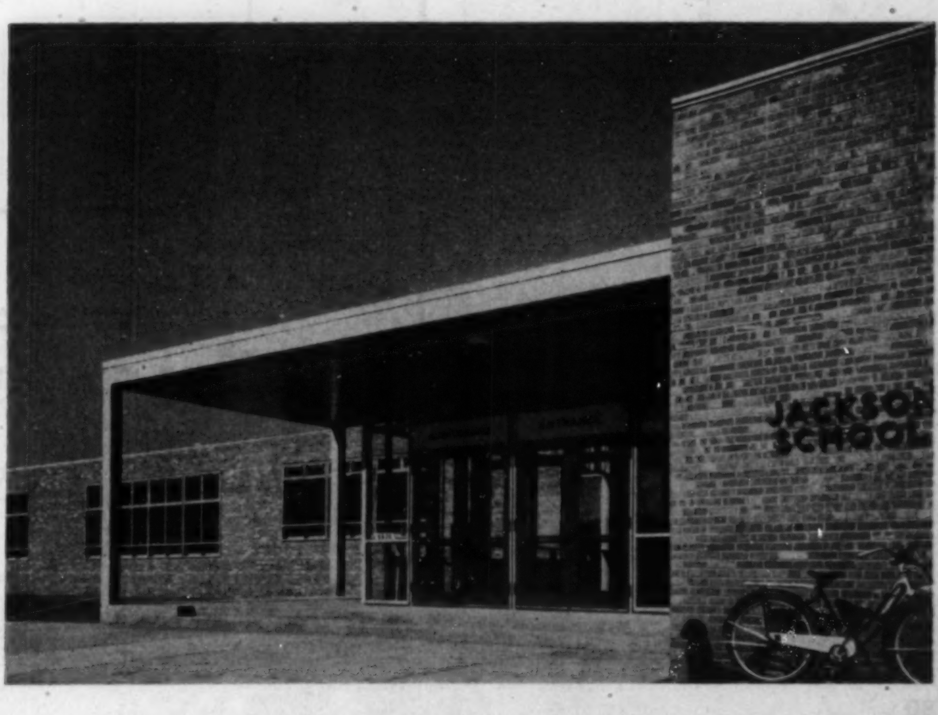
cradle to grave" for all members of the community


UPPER GRADE
UPPER GRADE
UPPER GRADE
HIGH SCHOOL
HIGH SCHOOL
MATH.
ENGL.
PRIN
TCHRS
COMM'L
GIRLS
JAN
STOR
HIGH SCHOOL
HIGH SCHOOL
HIGH SCHOOL
SCIENCE
SOCIAL SCI.
BOYS
STOR
CLUB AND GROUP RMS
UPPER PART OF STAGE
UPPER PART OF AUD'M
LIGHT & VENT. FOR LOCKER RMS
UPPER PART OF GYMNASM

SECOND FLOOR

This unusual school is to be located in a farm community. The plan provides for a very long range of school training combining kindergarten, elementary school, high school, vocational and adult education. It also furnishes the rural community with a variety of services that might in cities be cared for in separate buildings. The agricultural department is located adjacent to the experimental gardens. The cannery is made available to farmers. The shops aid them in maintaining their mechanized implements. These facilities are located close to the vehicular entrance, but the small children's nursery is well isolated.

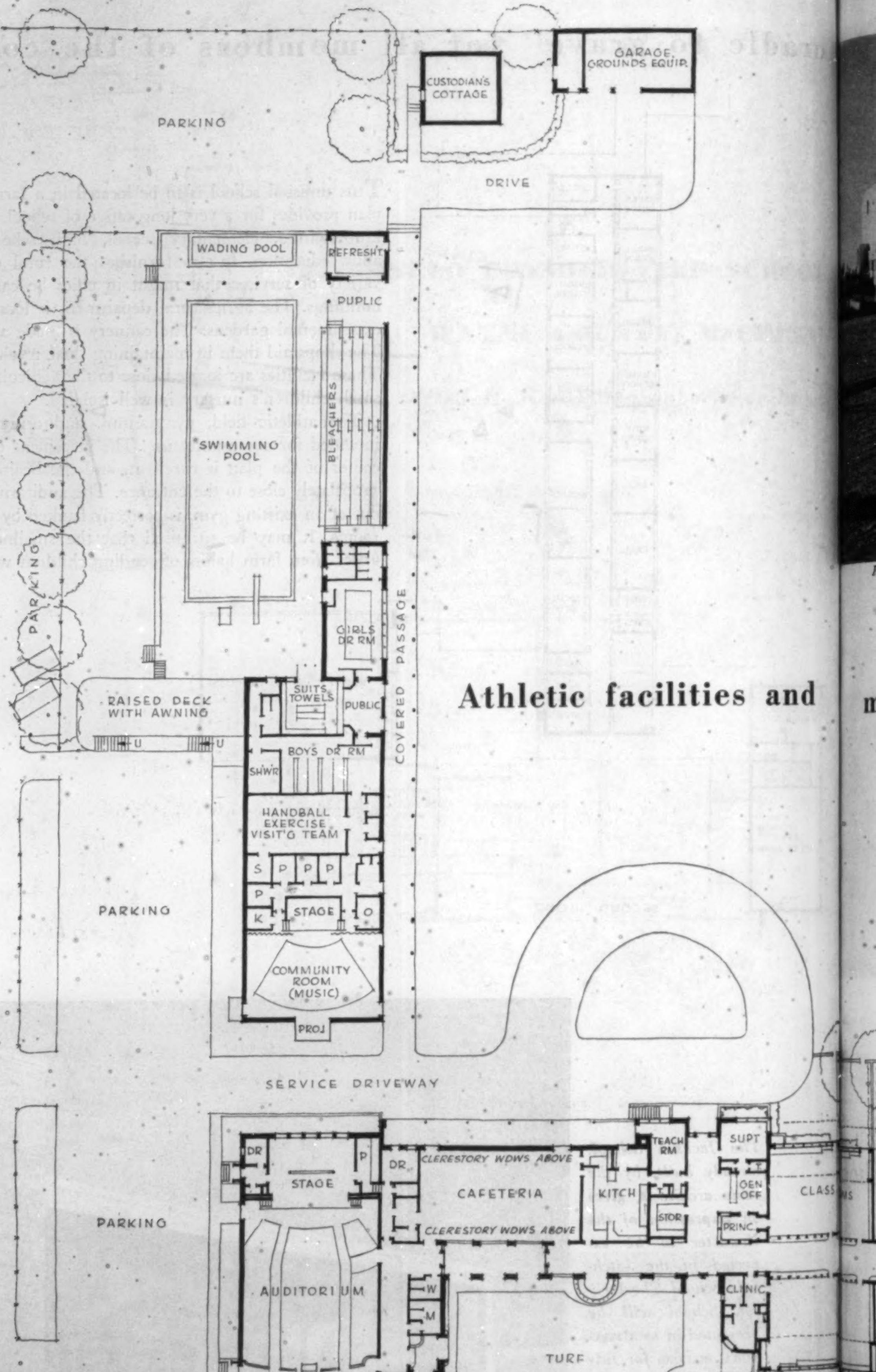
The athletic field, gymnasium, auditorium, and library, are intended for community use. The placement of the library at the center of the plan is excellent, and the health center is also appropriately close to the entrance. The auditorium, to be converted out of an existing gym, is correctly flanked by dramatics and club rooms. It may be surmised that the smallness of the cafeteria arises from farm habits of sending children with generous lunch.

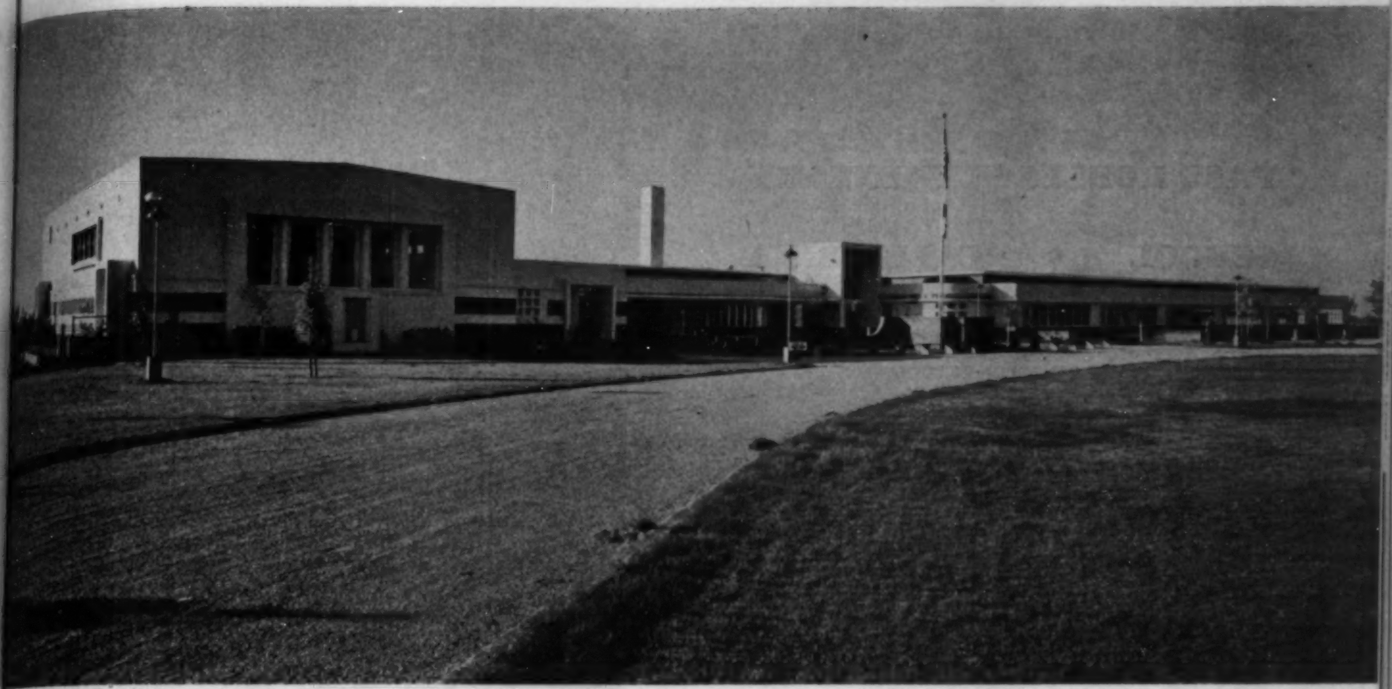

JACKSON SCHOOL

The Jackson School, already built, by the same architects, gives an impression of the character to be expected in the Litchfield School. The Jackson School will be presented in ARCHITECTURAL RECORD *for July*

Elmer L. Astleford

Athletic facilities and


CUSTODIAN'S COTTAGE
GARAGE, GROUNDS EQUIP.
PARKING
DRIVE
WADING POOL
REFRESHT
PUBLIC
BLEACHERS
SWIMMING POOL
PARKING
GIRLS DR RM
COVERED PASSAGE
SUITS TOWELS
PUBLIC
RAISED DECK WITH AWNING
U
U
BOYS DR RM
SHWR
HANDBALL EXERCISE VISIT'G TEAM
S
P
P
P
P
K
STAGE
O
PARKING
COMMUNITY ROOM (MUSIC)
PROJ
SERVICE DRIVEWAY
DR
P
STAGE
DR.
CLERESTORY WDWS ABOVE
CAFETERIA
CLERESTORY WDWS ABOVE
KITCH
TEACH RM
STOR
SUPT
GEN OFF
PRINC.
CLASS
NS
PARKING
AUDITORIUM
W
M
CLINIC
TURF
CLASS
O
0
50
100
BUS LOADING

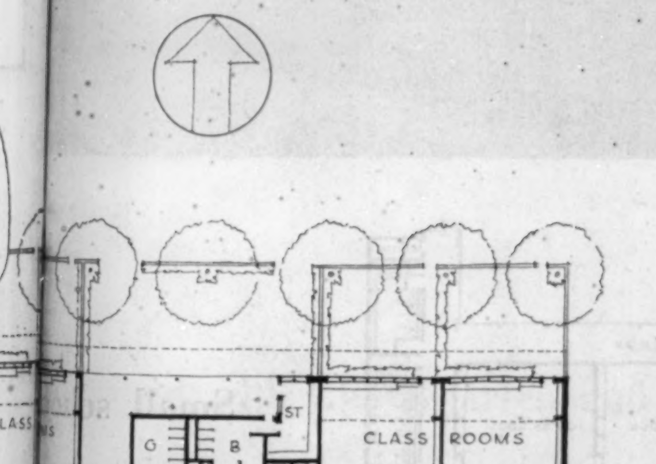


Roger Sturtevant

music rooms as the nucleus of neighborhood development

ADDITIONS TO LAKESIDE SCHOOL, CALIFORNIA

Frank Wynkoop and Associates,
Architects and Engineers



THE existing part of this wide-spreading and ample California school is to be presented fully in the next issue of ARCHITECTURAL RECORD, along with other schools by the same architect which carry forward a unique line of approach to the development of square classrooms and their adequate daylighting. In the present context, the main interest attaches to the proposed additions. They embrace all that part of the plan appearing on the left-hand page above the existing auditorium, which is seen also in the foreground of the photograph above.

The additions, considered as a unit along with the present kitchen, cafeteria and auditorium, will complete a neighborhood service unit which occupies well over half the area of the total building group as shown.

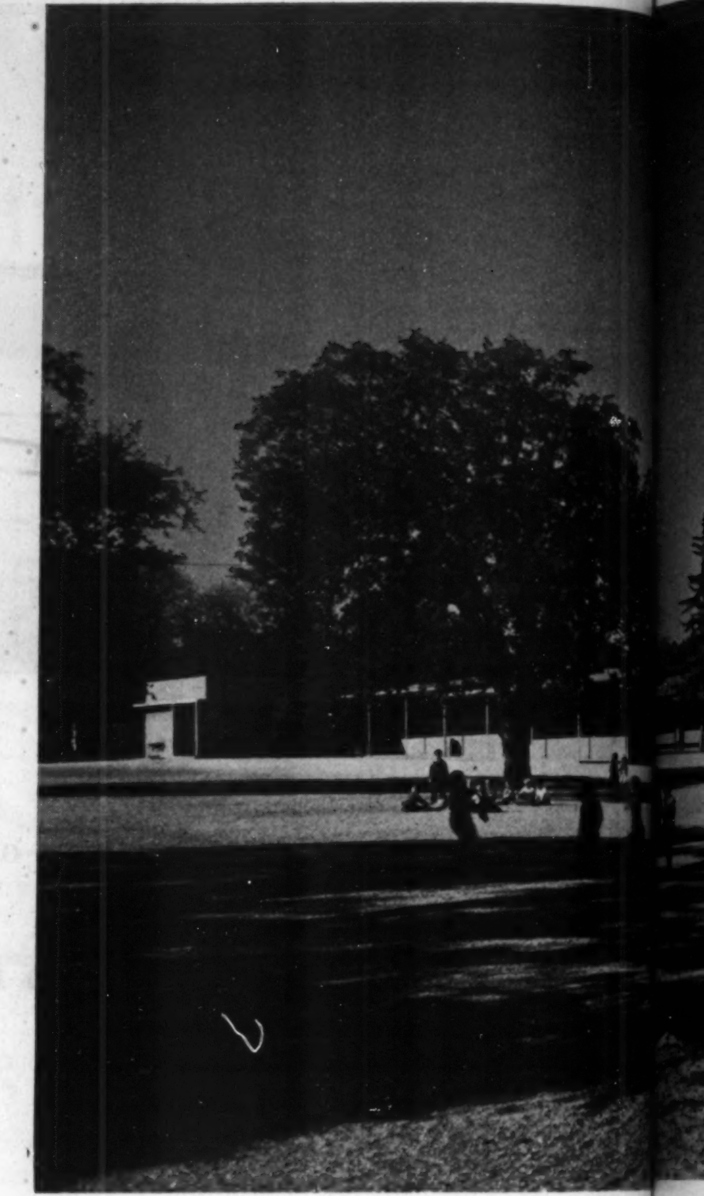
This example has been included because of its stress in athletic facilities, and the attendant stress on music, presumably with no neglect of the school band. Practice rooms are so placed in relation to a handball court that votaries on both sides may hammer away to their hearts' content, disturbing no one, least of all one another.

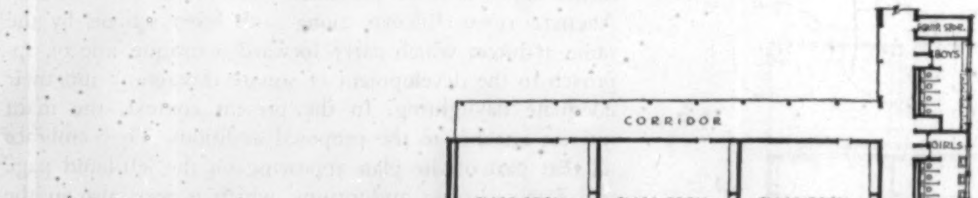
The entire bleacher section is to be covered with an awning, and the whole arrangement is suited to use by all the neighbors.

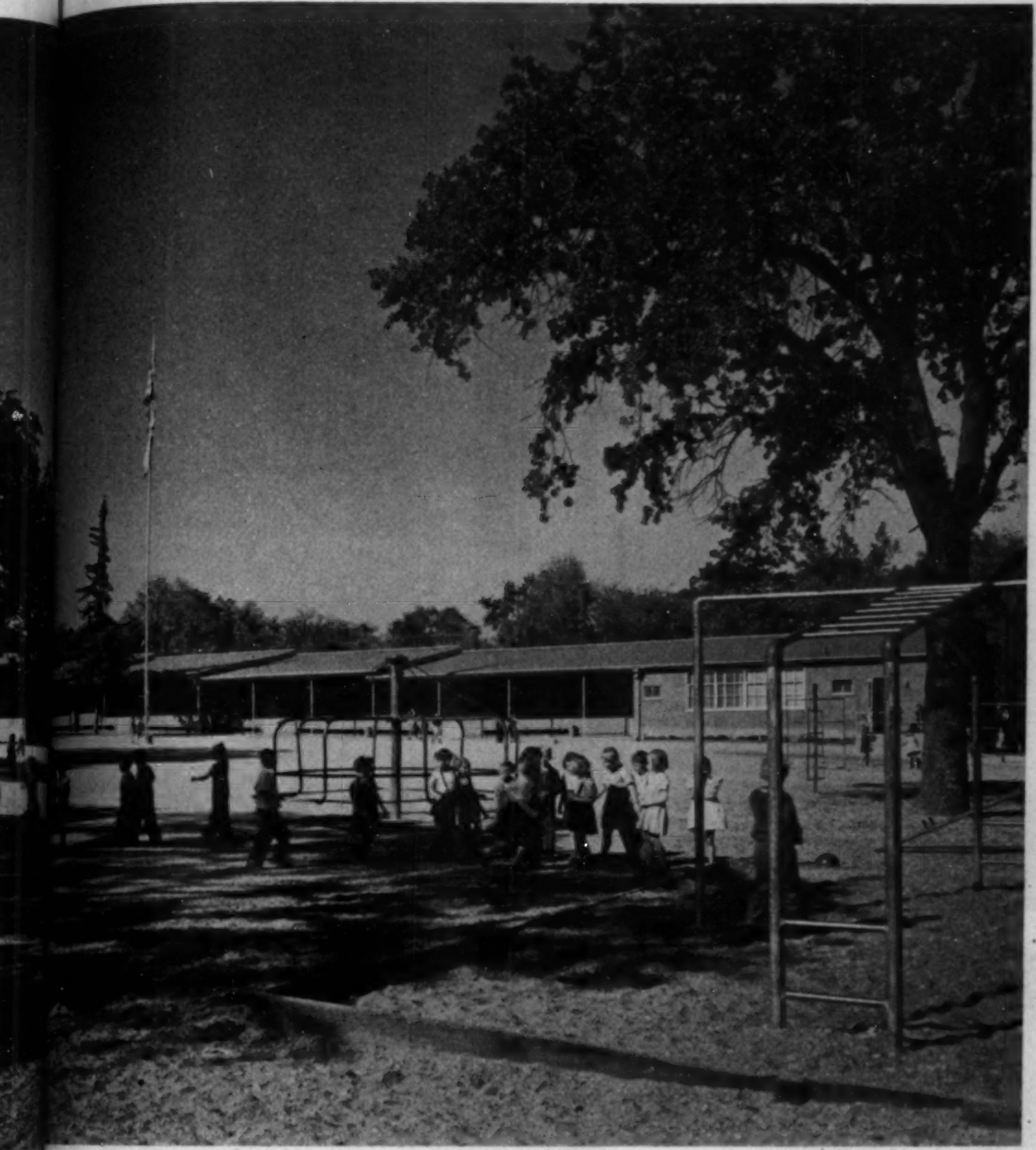
PASO ROBLES ELEMENTARY SCHOOL • CALIFORNIA

Frank Wynkoop and Associates

Architects and Engineers




JANR. STOR.
BOYS
GIRLS
CORRIDOR
CLASS ROOM
CLASS ROOM
CLASS ROOM
BOILER
REST
NURSES
WTG
CL
CL
CORRIDOR
KINDERGARTEN
CLASS ROOM
CLASS ROOM
CLASS ROOM
CLASS ROOM
SUPPLIES
OPEN COURT (SOIL)
PRINC OFF
GEN. OFF
TEACHERS RM
SHELTER
0 10 20 30 40 50



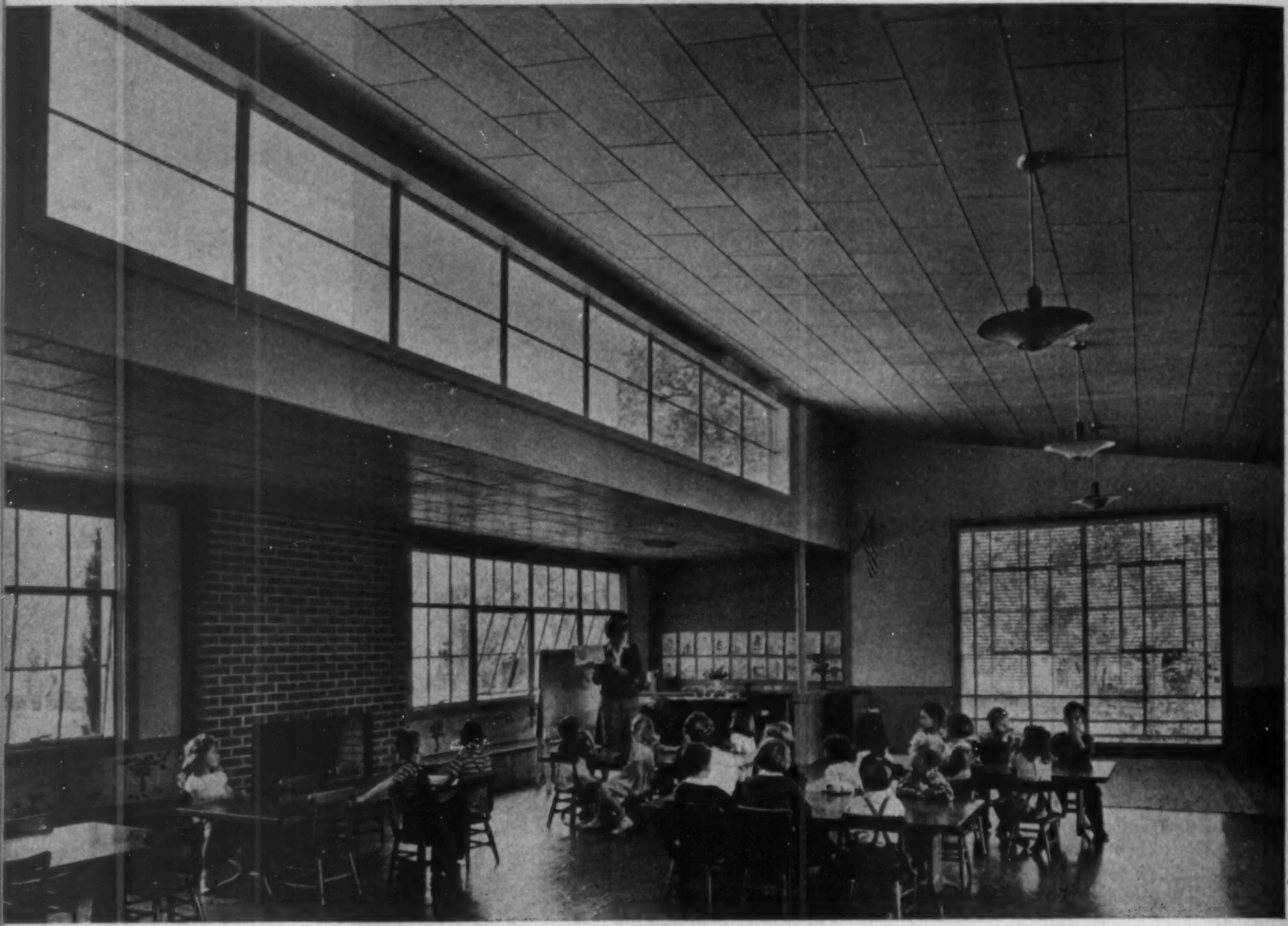
Roger Sturtevant photos

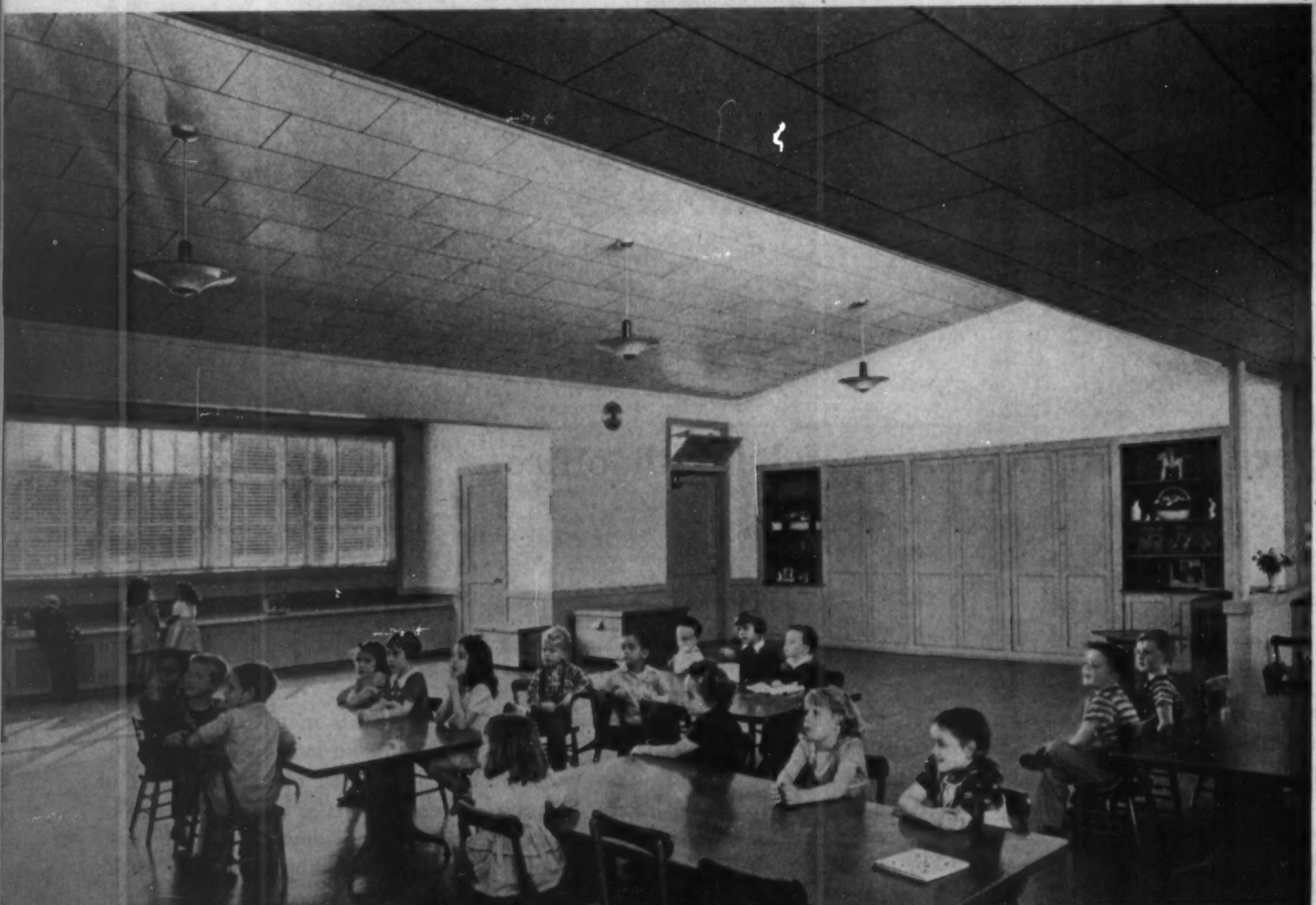
equipped with kindergarten and health office

THIS is preeminently a child-scaled school; there is even something diminutive in the appearance of the long wings, despite the amplitude of their actual dimensions.

Though the plant is very modest in size, we find a fully equipped nurse's office and an adjoining rest room for children needing temporary isolation. The presence of a kindergarten always gives a school neighborhood character, because it brings the parents in with the children.

The Paso Robles school joins the long list of California institutions which use a plan based on parallel rows of classrooms, forming sheltered courts as additional outdoor play space. Also, the roofline steps down informally with the slope of the land, reducing building operations to the minimum. The exterior finish is in stucco which is colored.





The two views on the opposite page are both taken in the kindergarten room, which is wider than ordinary classrooms by the width of the alcove seen in the lower picture. In the view on this page of a regular classroom, the activity alcove, with sink and storage space, appears at right rear

The square type of classroom, which has become so customary in California, gains many of its advantages through the extra space that is left over for special activities, no matter what arrangement is chosen for the seating. Bilateral lighting permits the seats to be changed around and to face in any one of several directions.

If seats are arranged to face the inner wall, space is left to right or left; if on the diagonal, there remains open space in the corners to the left and right and rear.

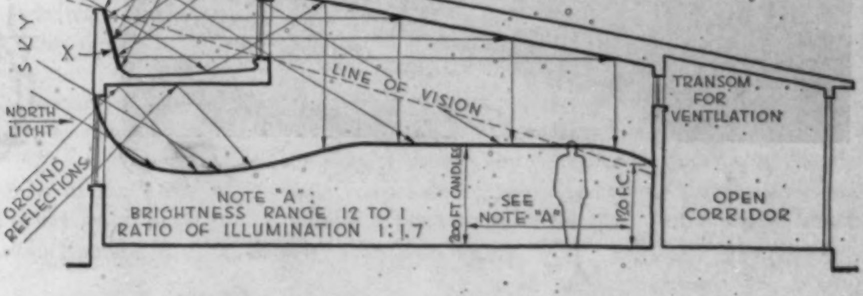
The kindergarten room in this particular school has been given extra width by the simple expedient of placing it at the end of the corridor, where it also gets its individual toilet, needed by the smaller children.

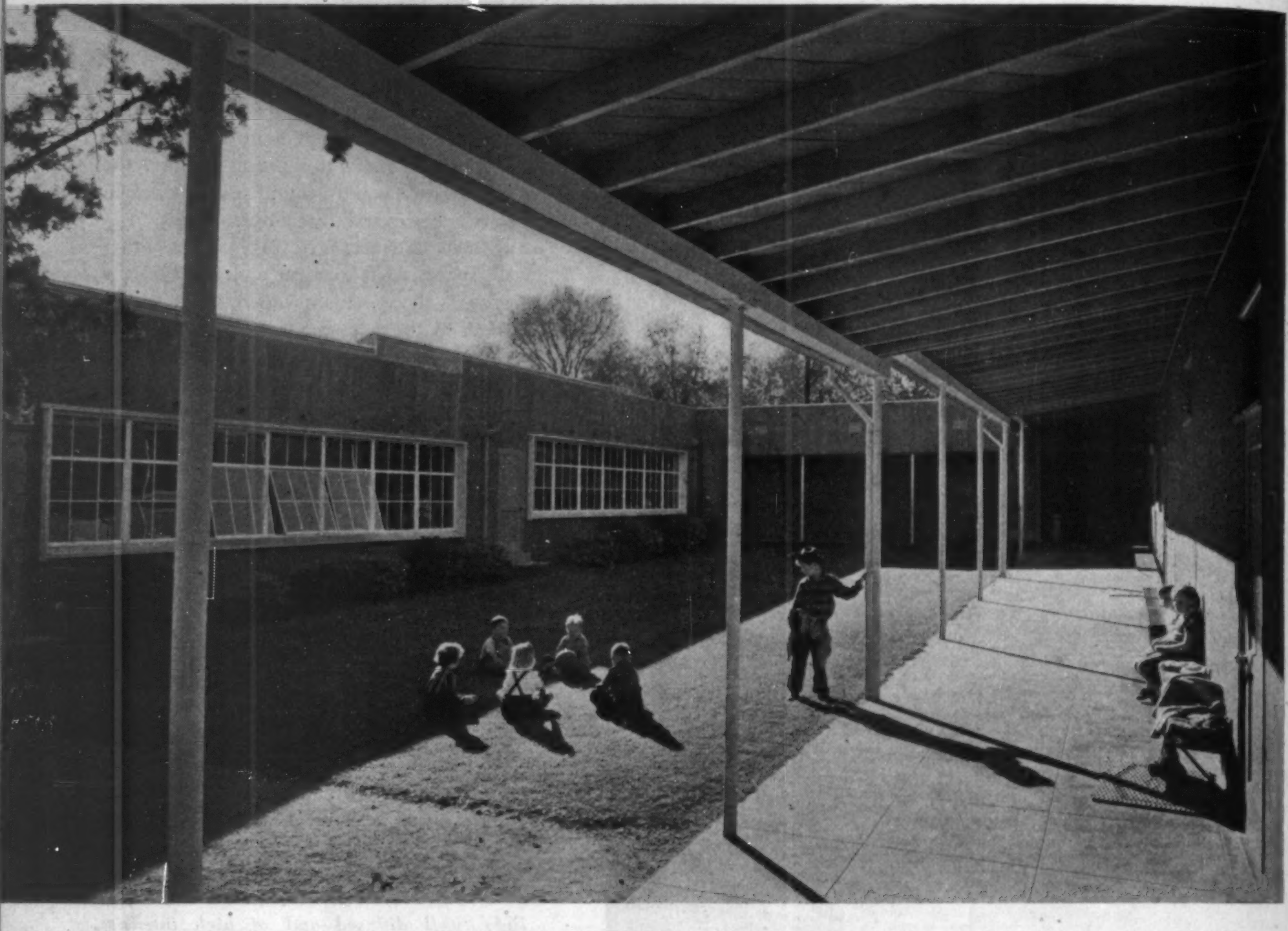
By placing the fireplace in the center of a glass wall, the architect has obtained a pleasant and striking effect encountered hitherto more frequently in modern residences.

The extra length of framing needed in the larger room for support of the clerestory has been reduced by lally columns, cleverly incorporated into the design by means of alcoves.

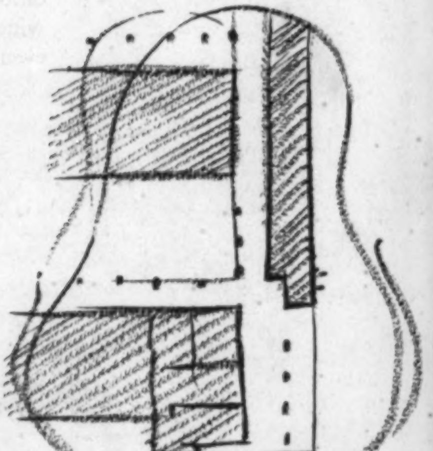
This classroom is actually flooded with daylight, well diffused and of high intensity, both visually and by meter-test (see footcandle range line in diagram below); a fact not wholly evident in the picture

The greatest innovation in the Paso Robles school has perhaps been the ingenious use of a sawtooth roof, similar to those of factories, to increase the depth of daylight penetration. Tests quoted in "Sixteen Ways of Daylighting Classrooms" (AR, May, 1944) showed that a heavy role is actually played by the roof parapet. It reflects sun rays coming from the south and sends them back into the room. Additional north light comes from the sky, through both the upper and the lower windows, and some is reflected up from the ground. The result is a remarkable evenness of illumination, and a desirably short range of brightness.


SKY LIGHT
SUMMER SUN AT NOON
WINTER SUN AT NOON
SUMMER SUN 8am AND 4pm
WINTER SUN 7am AND 4:30pm
E
N
W
S
NOON SUN
X - REFLECTIVE WALL— EXTREMELY HIGH INTENSITY WHEN SUN UNOBSCURED
X
NORTH LIGHT
GROUND REFLECTIONS
LINE OF VISION
TRANSOM FOR VENTILATION
NOTE "A": BRIGHTNESS RANGE 12 TO 1 RATIO OF ILLUMINATION 1:1.7
200 FT CANDLES
SEE NOTE "A"
120 F.C.
OPEN CORRIDOR



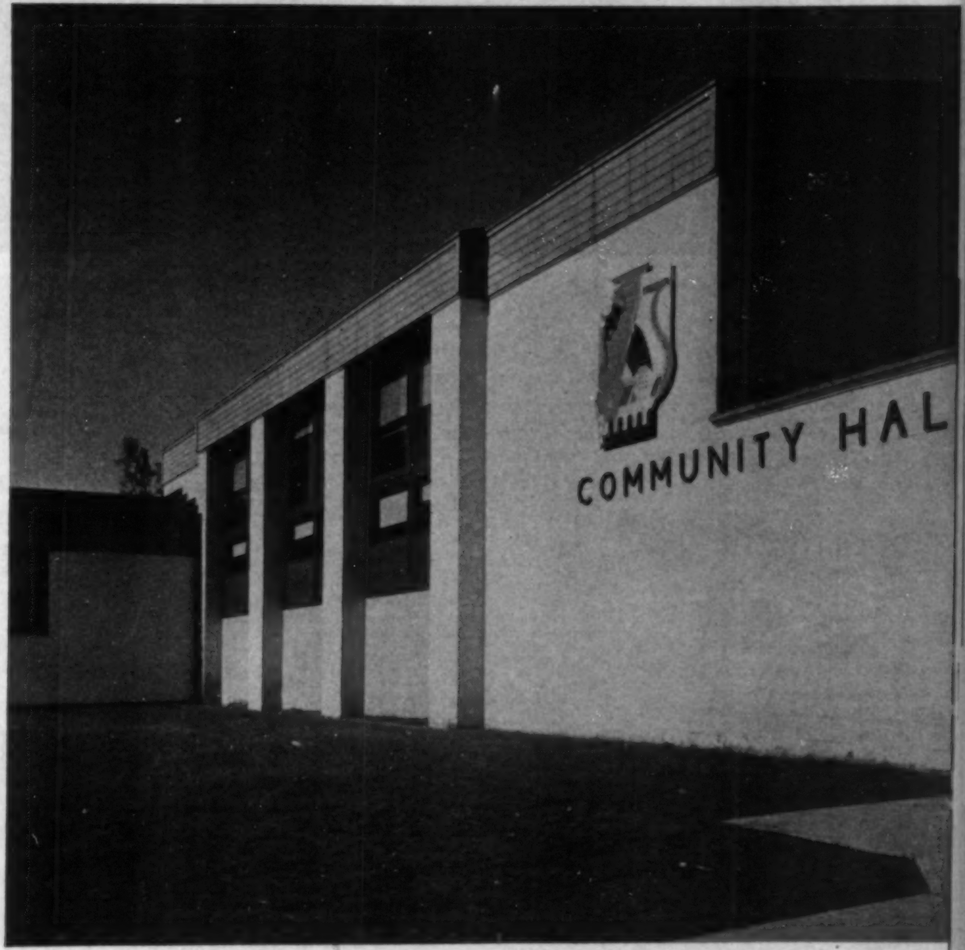
The outdoor semi-enclosed court areas, created by space between parallel rows of classrooms, make an especially agreeable place for outdoor play. In the lower view is seen the school entrance, with administrative offices to the left and health center right



COMMUNITY FACILITIES, BEREA, OHIO

J. Byers Hays, Wilbur Watson and Associates, Architects

Child Center carefully combined with a Neighborhood Center



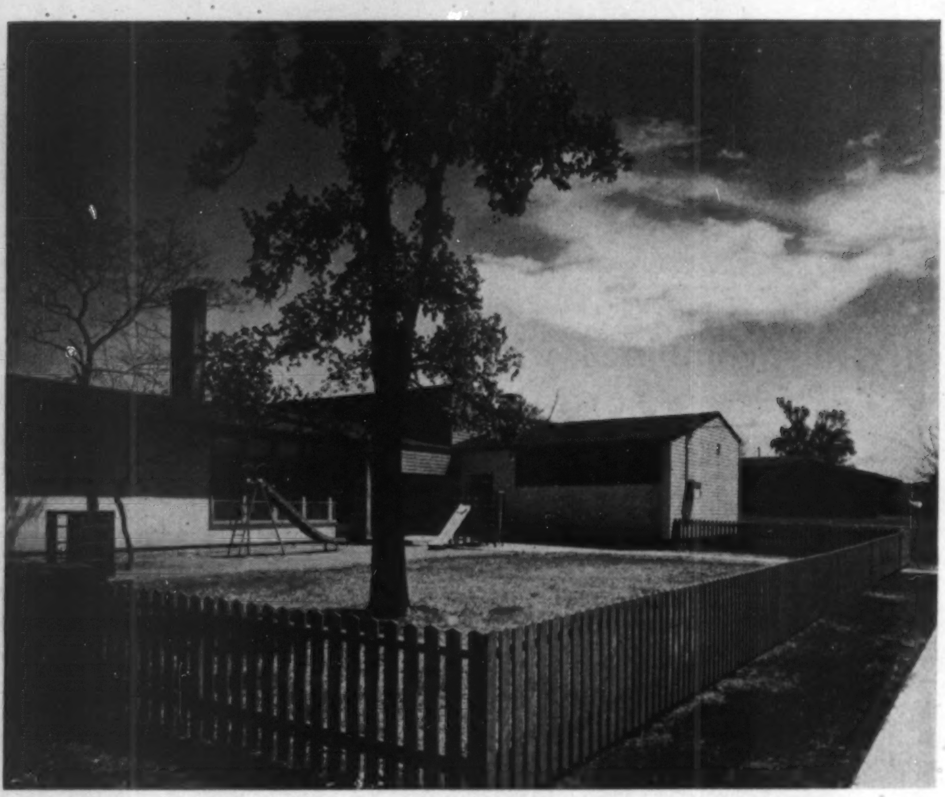
R. Marvin Wilson photos

THE building pictured above serves everyone except children trooping off to school; and yet it belongs squarely in the middle of a school study. As a neighborhood center, it serves the "post-school" age; as a child center, it serves the "pre-school" age; and the net result is a vigorous expansion of education downward and upward in the sense spoken of by Dr. Melby in his introduction.

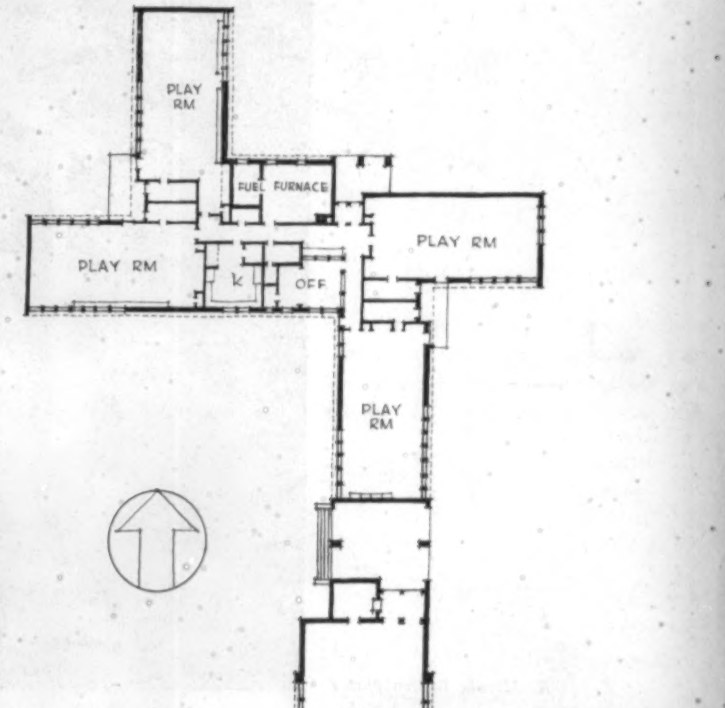
Child centers owe their rapid spread to the needs of working mothers. The center originates as a place to leave small children. What would be more natural than to provide facilities in the same place for children's health, and then for adult health, and finally for adult recreation?

Ultimately the community center thus organized becomes a place where the whole family can join with its neighbors for social occasions and for sociable relaxation.

The example shown was built in connection with a war community in an Ohio suburb near the city of Cleveland. To a remarkable degree it combines modest scale and a pleasant appearance with the dignity that should attach to every civic building.



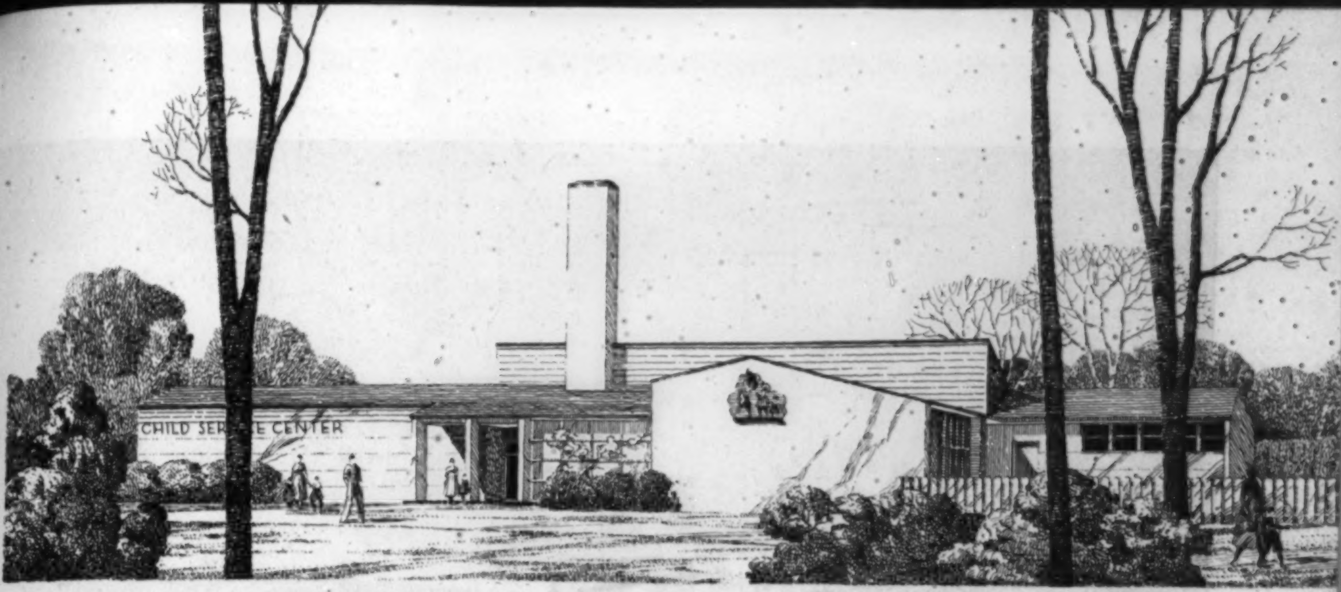
The quiet small children's play court seen in the view above is situated in the northwest corner. It occurs in the part of the plan which is seen directly to the right of this caption


PLAY RM
FUEL
FURNACE
PLAY RM
PLAY RM
K
OFF
PLAY RM
COMMUNITY HALL
MAINTEN'CE
ASST MGR
GEN OFF
T
MGR
RENT'L
CLIN
CLINIC
W
M
FUEL
FURNACE
K
CLUB RM
CLUB RM
CLUB RM
ACTIVE GAMES
0
25
50
100

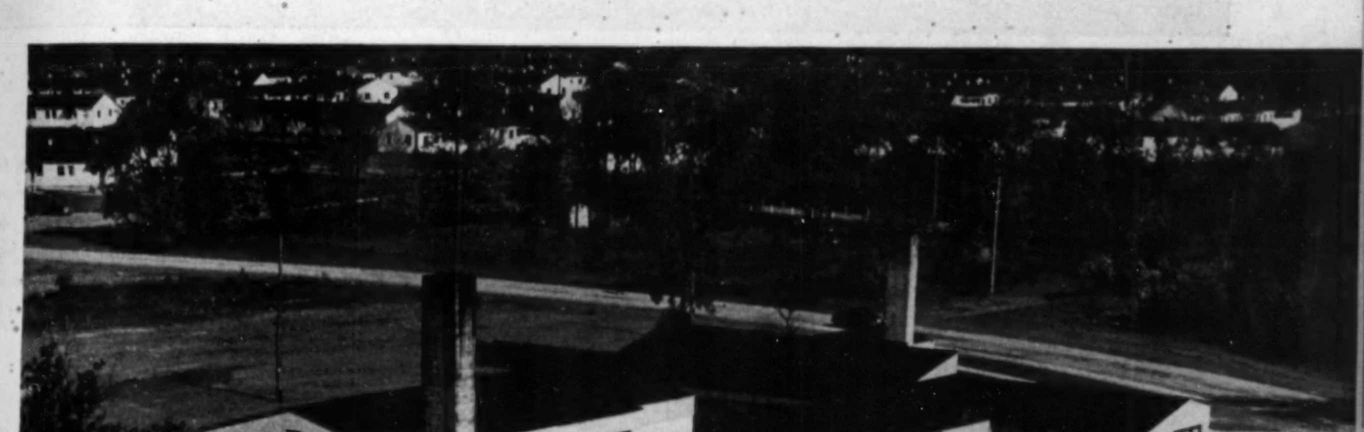
The plan for the Berea community and child center shows a remarkably clear organization. There are actually two buildings, as seen in the large photograph, each complete with its own heating plant and kitchen, and yet both are combined skillfully to make up a single unit, effectively brought to a central focus.

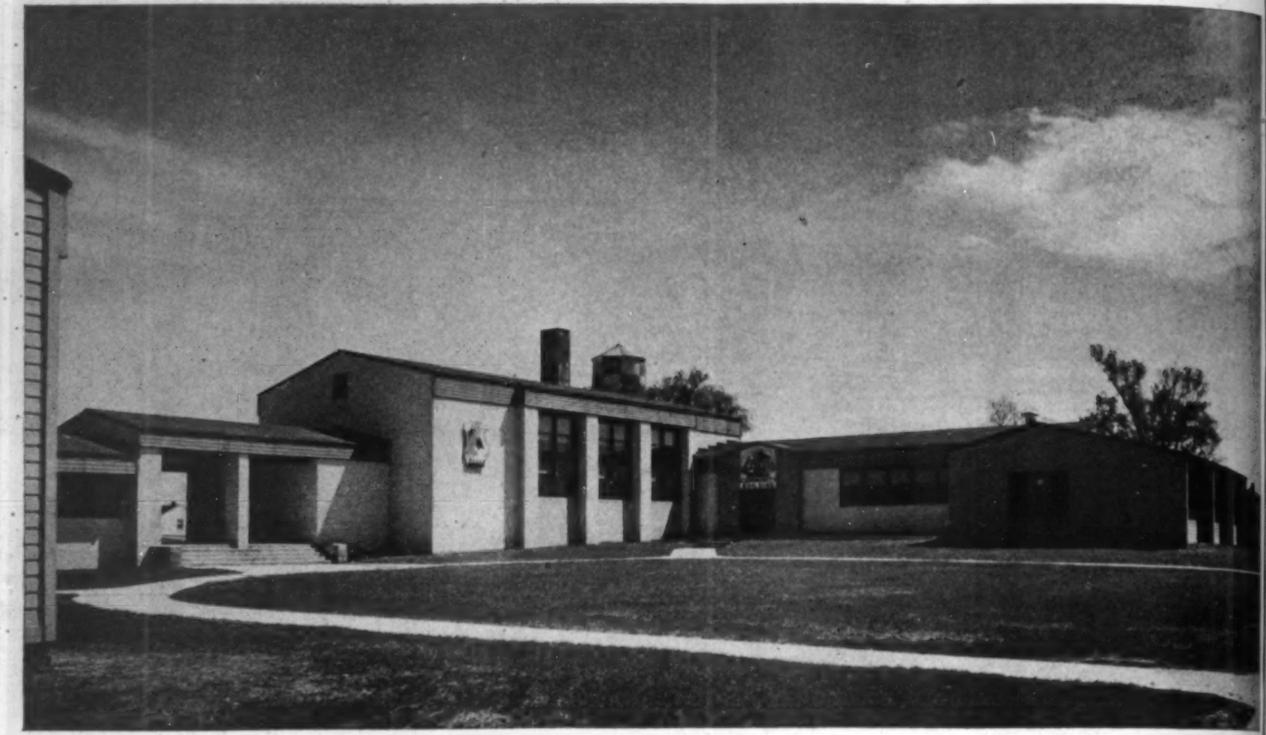
Although the total length, through the main axis, is more than 300 feet, the building retains a surprising appearance of being "little."

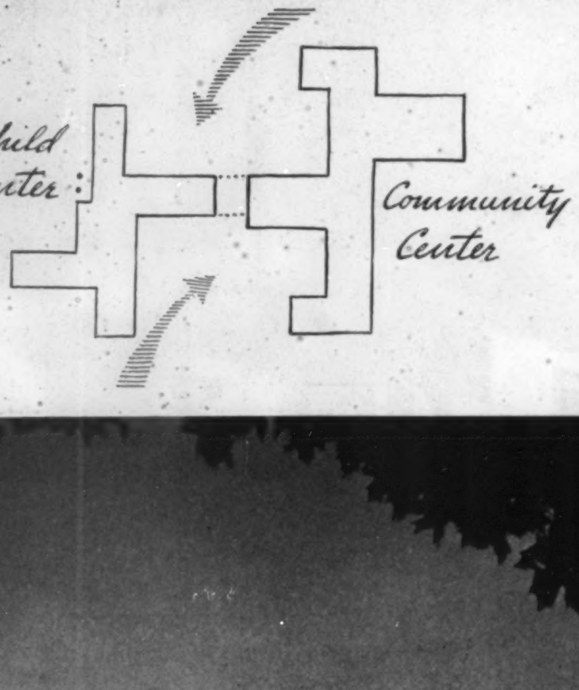
Of particular interest is the manner in which all the noisier areas have been isolated and baffled off from areas needing quiet. The windmill pattern of the children's playrooms leaves only a short end of each room contiguous to the corridors; and cloakrooms, fuel rooms, the entrance, or other intervening zones are to be found next to each. The same principle is used in the neighborhood center devoted to adults. Here the room for action games is baffled off by the furnace, and the maintenance room has a far end of the building to itself.



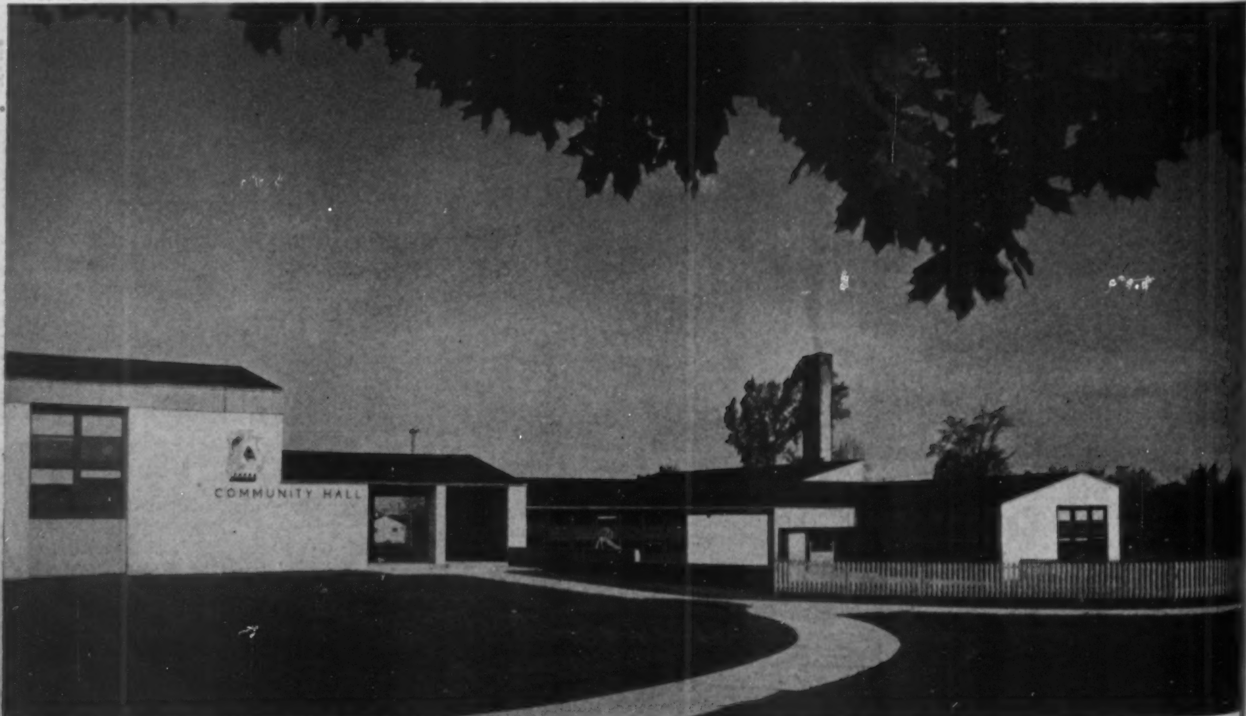
The north entrance to the building is seen in the rendering above, and the south entrance occupies the foreground of the photograph. The first is for children, the second for adults






Child Center
Community Center

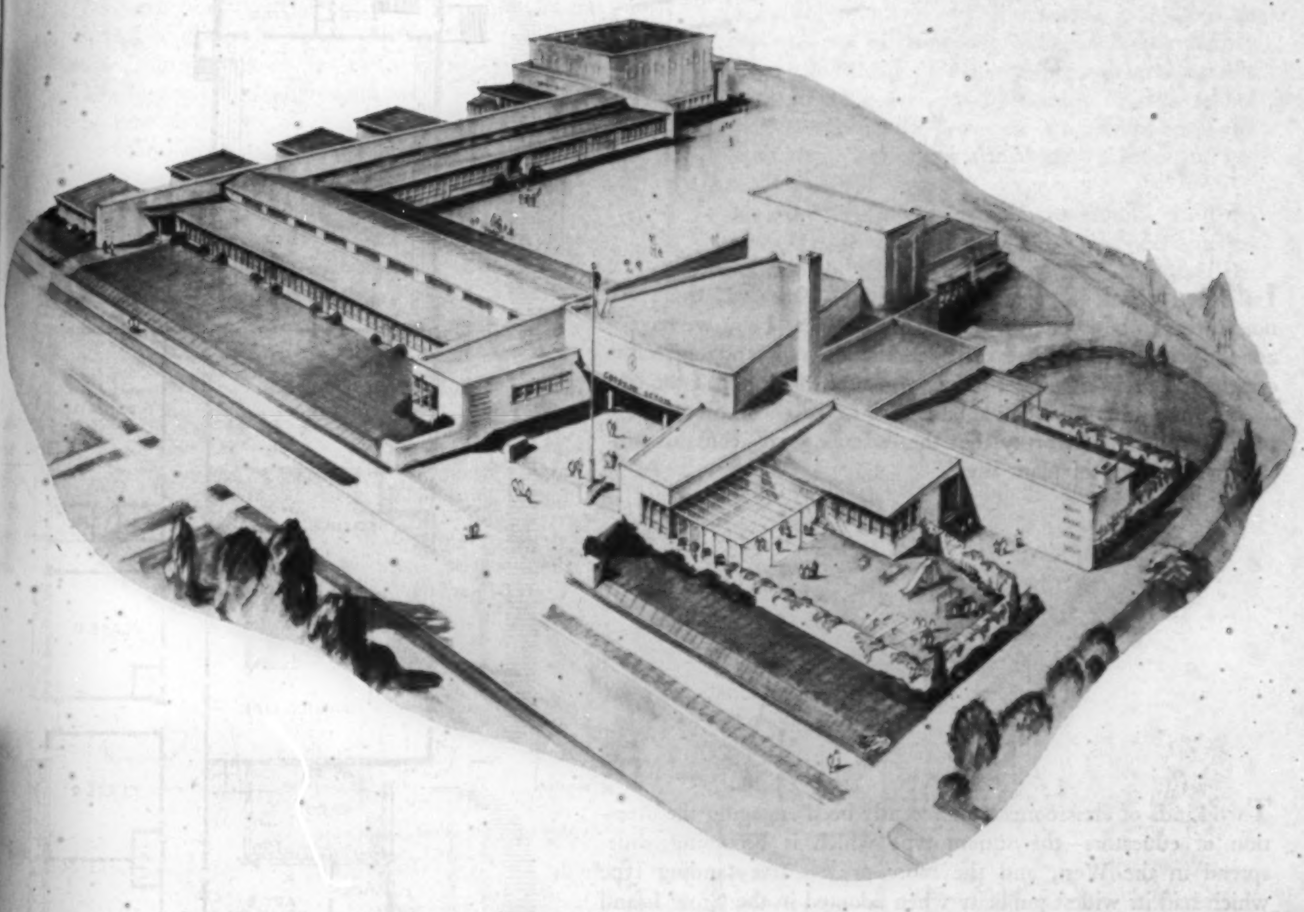
The view above is from the east, the view below from the west. The link element between the community center and the child center is the open passageway, which may be seen in both pictures, performing its function of giving four directional access. The vista which opens through it to the houses in the community is an interesting component of the building composition


COMMUNITY HALL

CRESTON SCHOOL, PORTLAND, OREGON

Wolff and Phillips, Architects

Using specialized classrooms and fully developed public areas

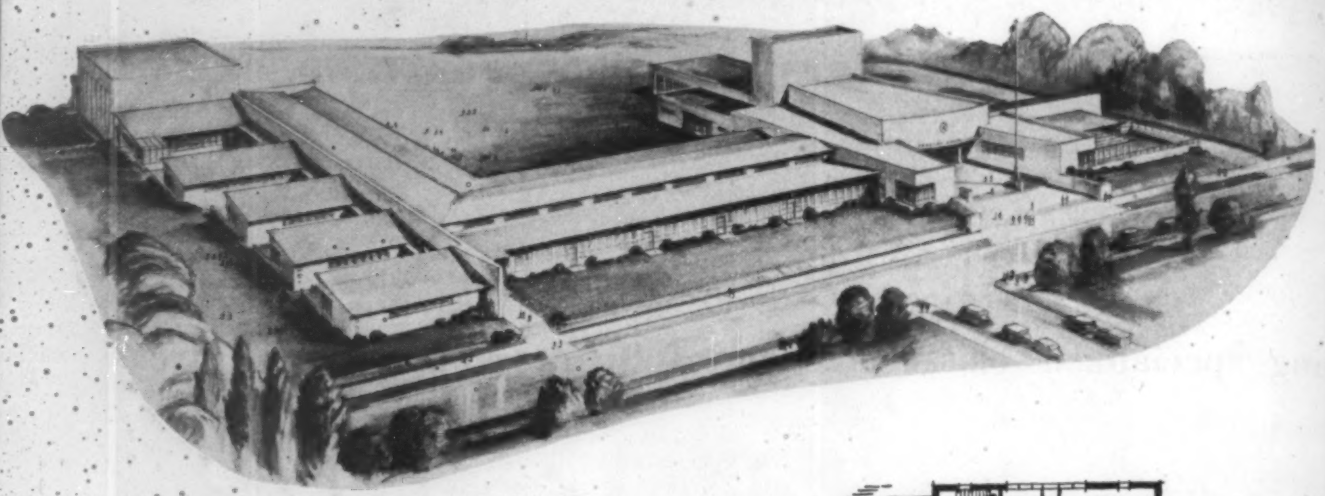


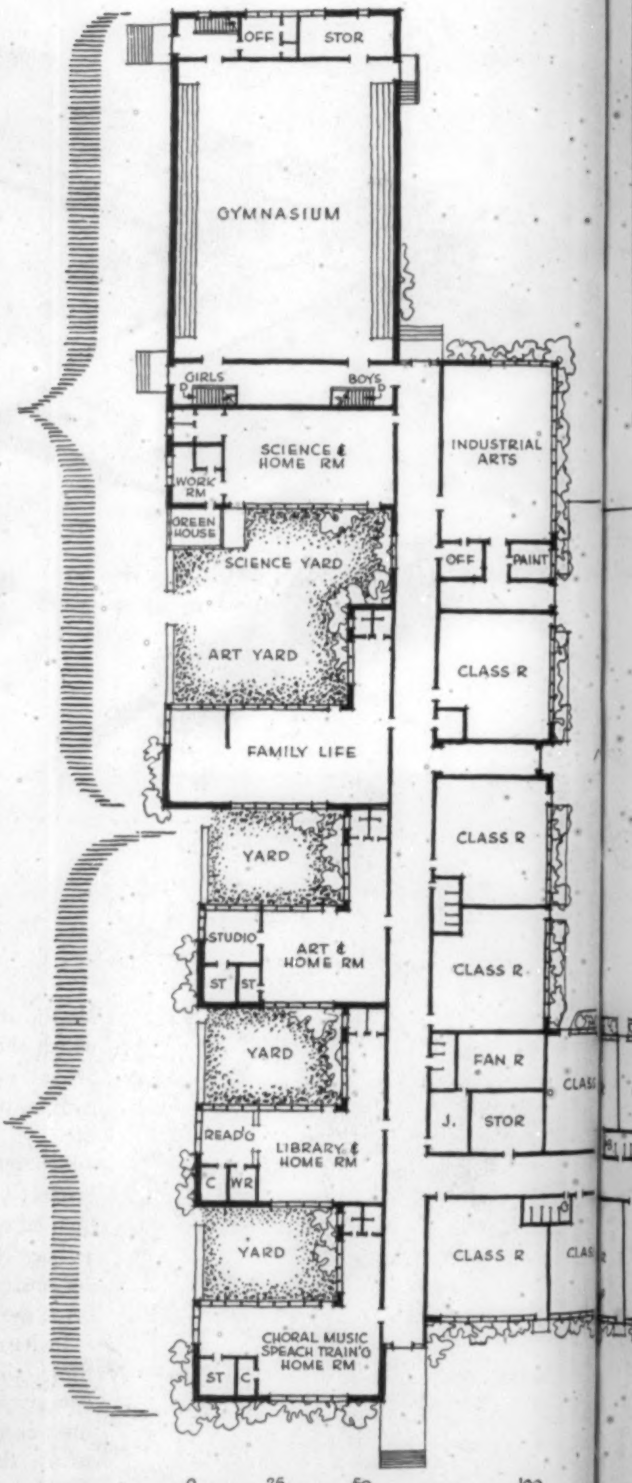
In the rendering above, it is manifest that all that part of the building which shows in the foreground was intended for neighborhood use. The School Board specified that the kindergarten, nursery, auditorium, and gymnasium should be so arranged as to become part of the community life. All of these elements are grouped together except the gymnasium, which has a position at the western end, contiguous to a public playground which is already under operation. The community facilities can be used separately at times when the remainder of the school is locked up.

The school itself is to serve 450 pupils.

Construction is to be fireproof, with exterior walls of concrete with brick facing.

In its main classroom wing the Creston School, along with a group of four other projected schools by the same architects for the city of Longview, Washington, is designed to take advantage of the surprisingly mild climate and negligible snowfall of the region. This makes it possible to use deep square classrooms and light them by clerestory construction which is explained overleaf.



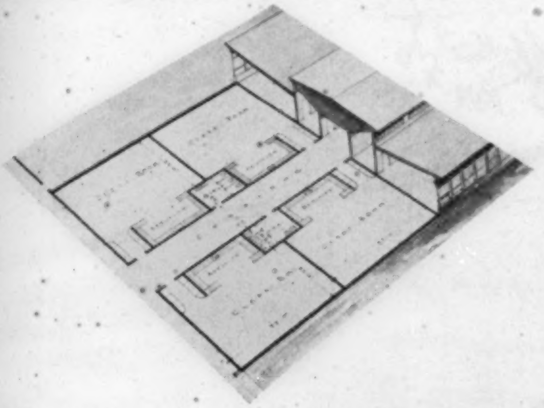

OFF
STOR
GYMNASIUM
GIRLS
BOYS
SCIENCE & HOME RM
WORK RM
GREEN HOUSE
SCIENCE YARD
ART YARD
FAMILY LIFE
INDUSTRIAL ARTS
OFF
PAINT
CLASS R
CLASS R
CLASS R
YARD
STUDIO
ART & HOME RM
ST
ST
YARD
READ'G
LIBRARY & HOME RM
C
WR
FAN R
J.
STOR
YARD
CLASS R
CHORAL MUSIC SPEACH TRAIN'G HOME RM
ST
C
0
25
50
100

In every school of pronounced "activity" character, there are noisy areas to be isolated from the quiet zones. Here we have a zone where there will be extended use of tools and apparatus creating more or less noise, properly grouped together at the end of a wing rather than in a basement or in the center of the building. It is noteworthy that the "science yard" contains provisions for study of plant life.

Two kinds of classrooms have recently been engaging the attention of educators—the square type which is becoming widespread in the West, and the more or less free-standing type which had its widest publicity when adopted in the Crow Island School at Winnetka, Illinois. The proposed Creston School uses adaptations of both kinds. In this western end, rooms tending to specialized use are of what might be called the "Winnetka" type, while the remainder of the rooms are square and all open directly to play areas.

One of the innovations worthy of special attention is the distribution of toilet rooms in scattered positions along the entire corridor, to cut down the need for supervision.

The heating is divided into seven zones. These serve, respectively, the classrooms, offices, cafeteria, auditorium, gymnasium, nursery and kindergarten, and community facilities sections. The community-facilities zone and the classroom zone are served by a split system utilizing wall-hung copper convectors for direct heating and a central fan for mechanical ventilation. The auditorium, gymnasium, and cafeteria are heated by individual blast units designed for continuous fan operation. The office has wall-hung copper convectors and the nursery and kindergarten have warm-water panels in the floors.



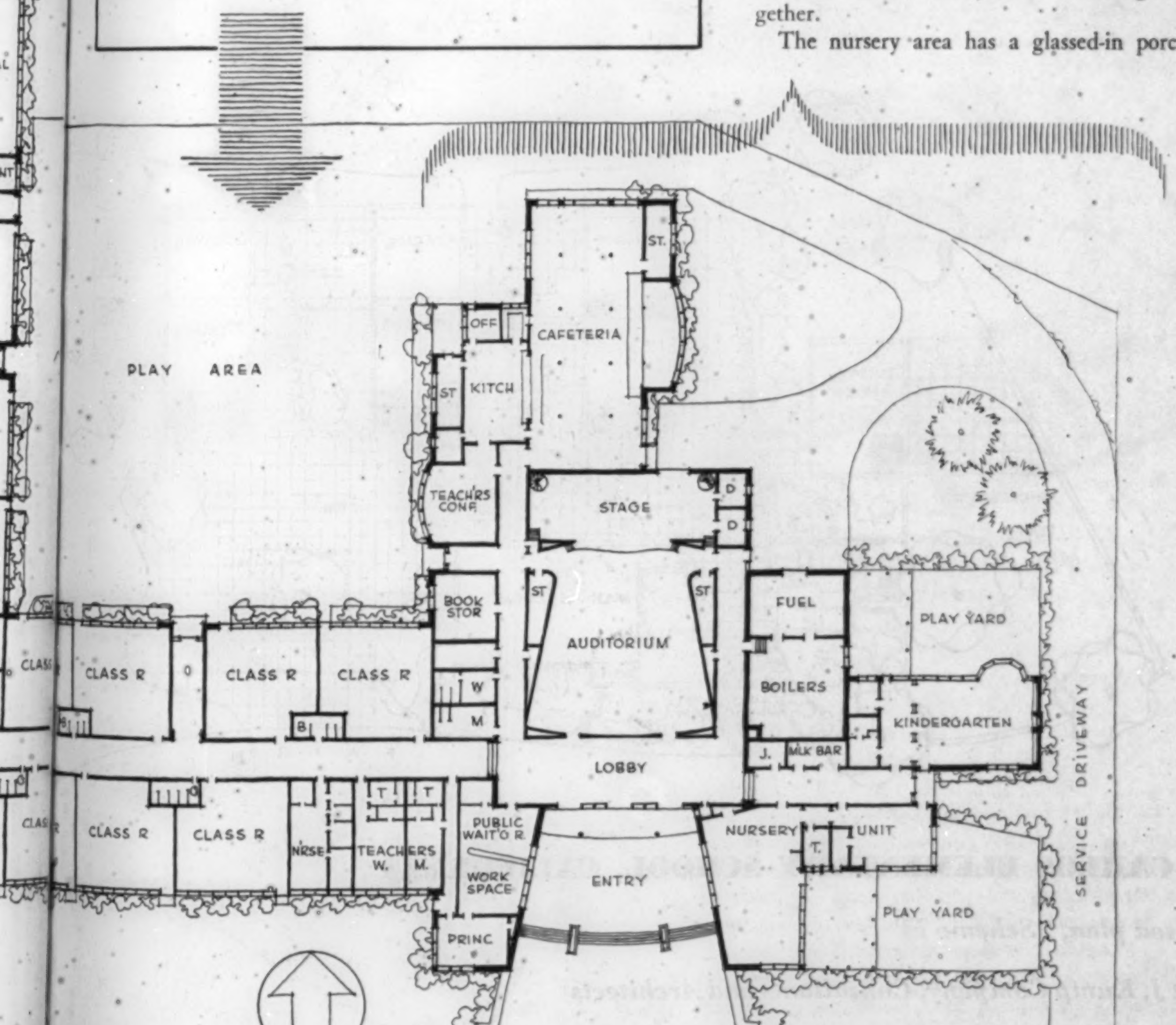
The structural system proposed for the Creston School is distinctly novel: The middle portion is raised up as shown in the section, to form a clerestory which daylights not only the corridor but the innermost part of the classrooms. Glass block are found in the clerestory and again in the upper part of the corridor wall directly opposite.

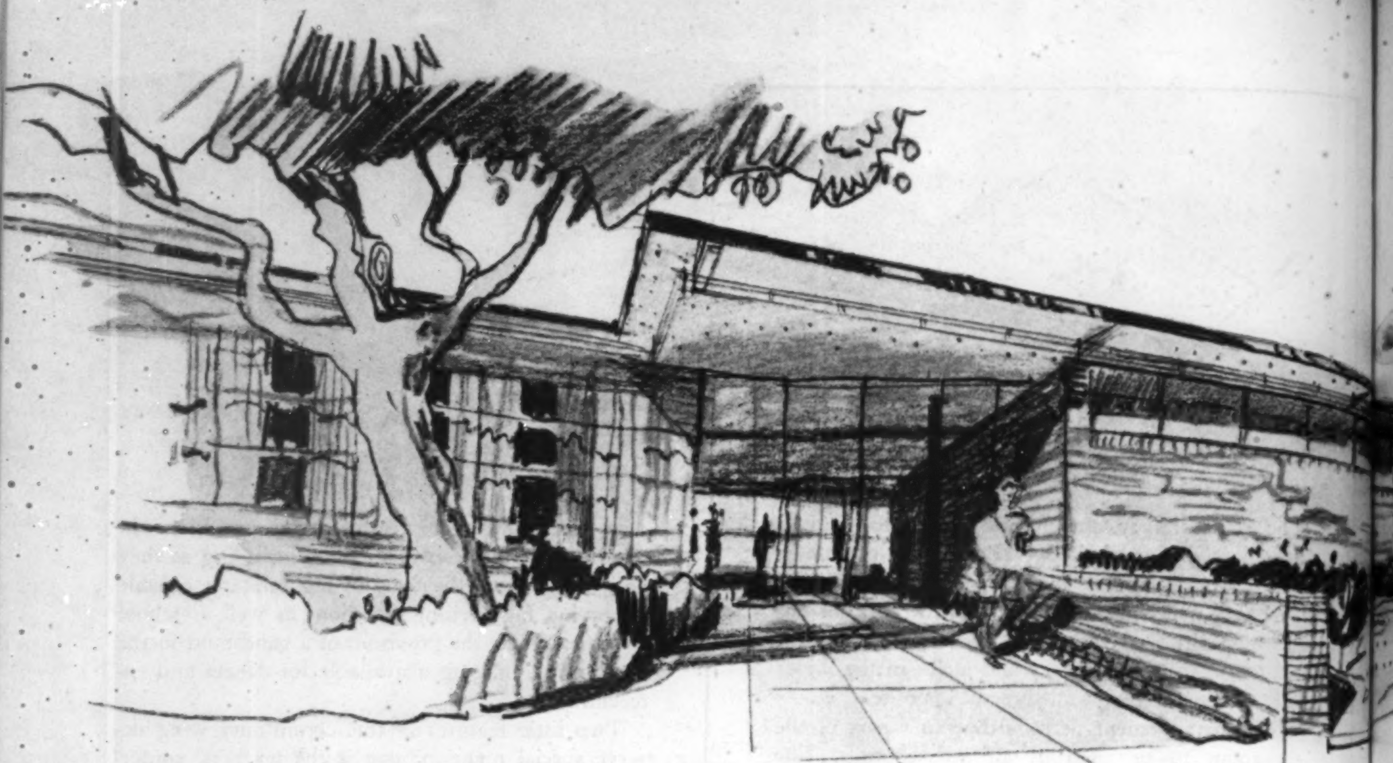
This arrangement permits the *inner* part of the classroom to be used as an activity area. The artificial illumination is closely integrated, and will be the subject of a later study.

THE community or neighborhood provisions in this plan are far from negligible, including as they do a full-fledged theater and big cafeteria capable of serving big evening functions as well as school purposes. Note the provision of a bandstand in the latter room, making it available for dances and entertainments.

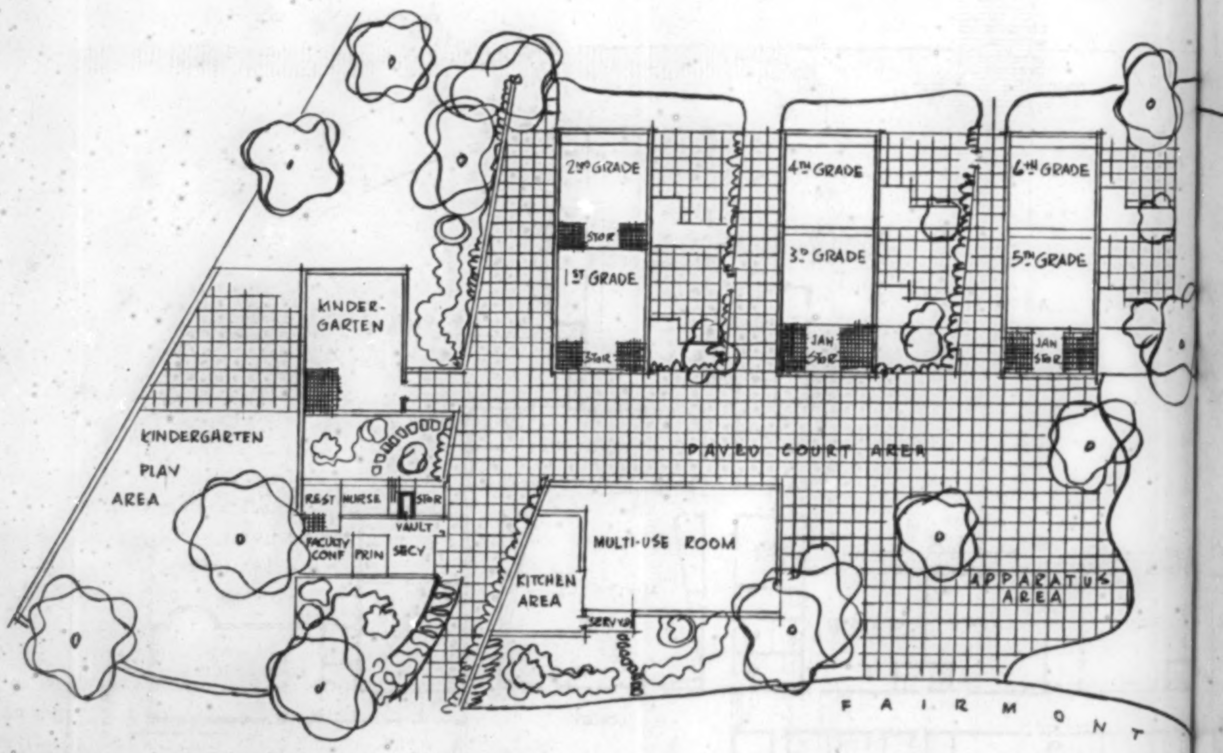
Two little features in this community wing deserve special mention: one is the teachers' conference room, whose importance is stressed by Dr. Melby. The other is a book storage room—a highly essential school facility too often forgotten altogether.

The nursery area has a glassed-in porch.


PLAY AREA
OFF
CAFETERIA
ST.
ST
KITCH
TEACHRS CONF
STAGE
D
D
BOOK STOR
ST
ST
AUDITORIUM
FUEL
PLAY YARD
BOILERS
KINDERGARTEN
W
M
CLASS R
O
CLASS R
CLASS R
B
B
LOBBY
J.
MLK BAR
T
T
CLASS R
CLASS R
NRSE
TEACHERS W. M.
PUBLIC WAIT'G R.
WORK SPACE
PRINC
ENTRY
NURSERY
T.
UNIT
PLAY YARD
SERVICE DRIVEWAY



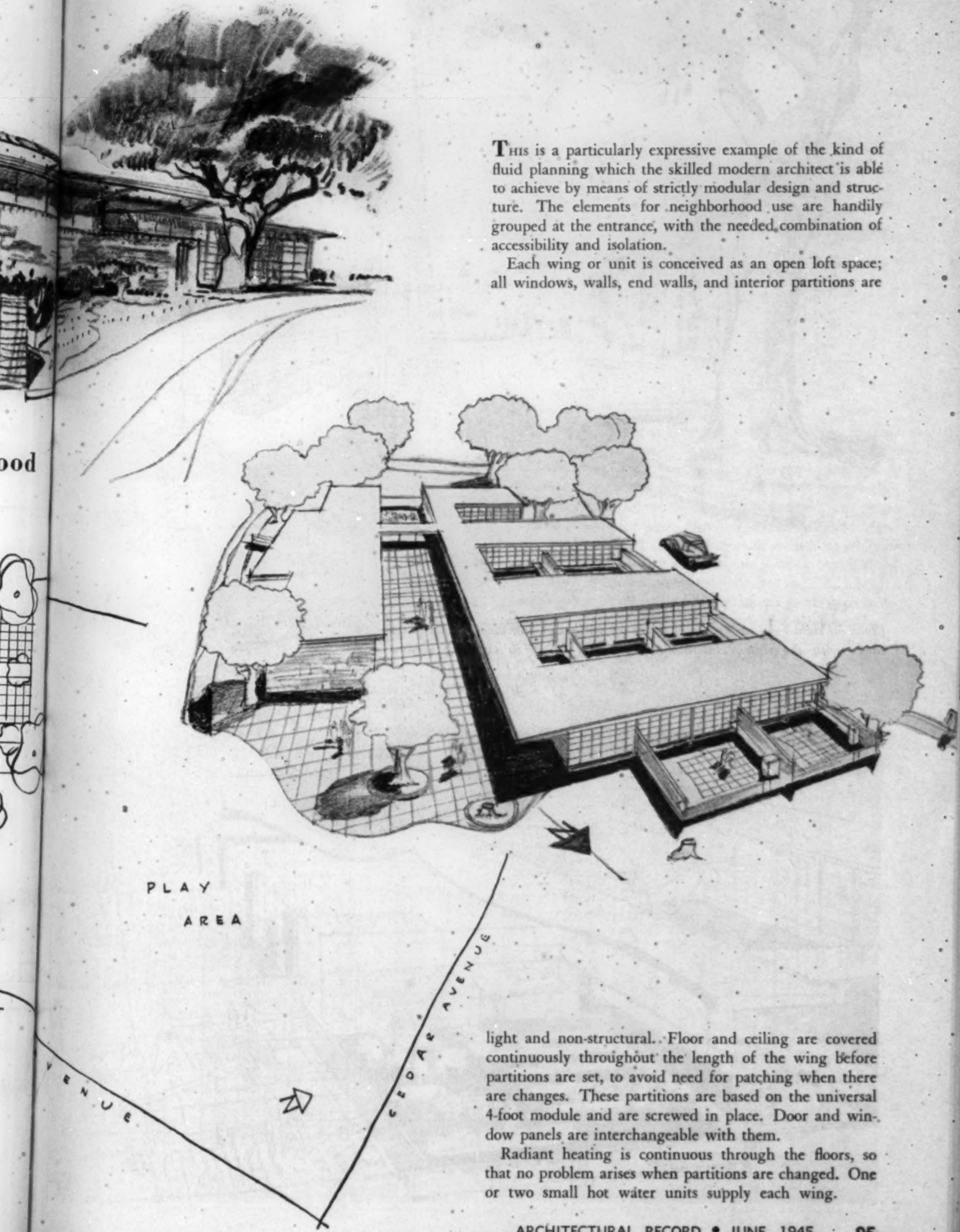
Fluid open planning of units for school and neighborhood


2ND GRADE
STOR
1ST GRADE
STOR
4TH GRADE
3RD GRADE
JAN STOR
6TH GRADE
5TH GRADE
JAN STOR
KINDER-GARTEN
KINDERGARTEN PLAY AREA
REST
NURSE
STOR
VAULT
FACULTY CONF
PRIN
SECY
PAVED COURT AREA
MULTI-USE ROOM
KITCHEN AREA
SERVICE
APPARATUS AREA
FAIRMONT

SAN CARLOS ELEMENTARY SCHOOL, CALIFORNIA

Proposed plan, "Scheme F"

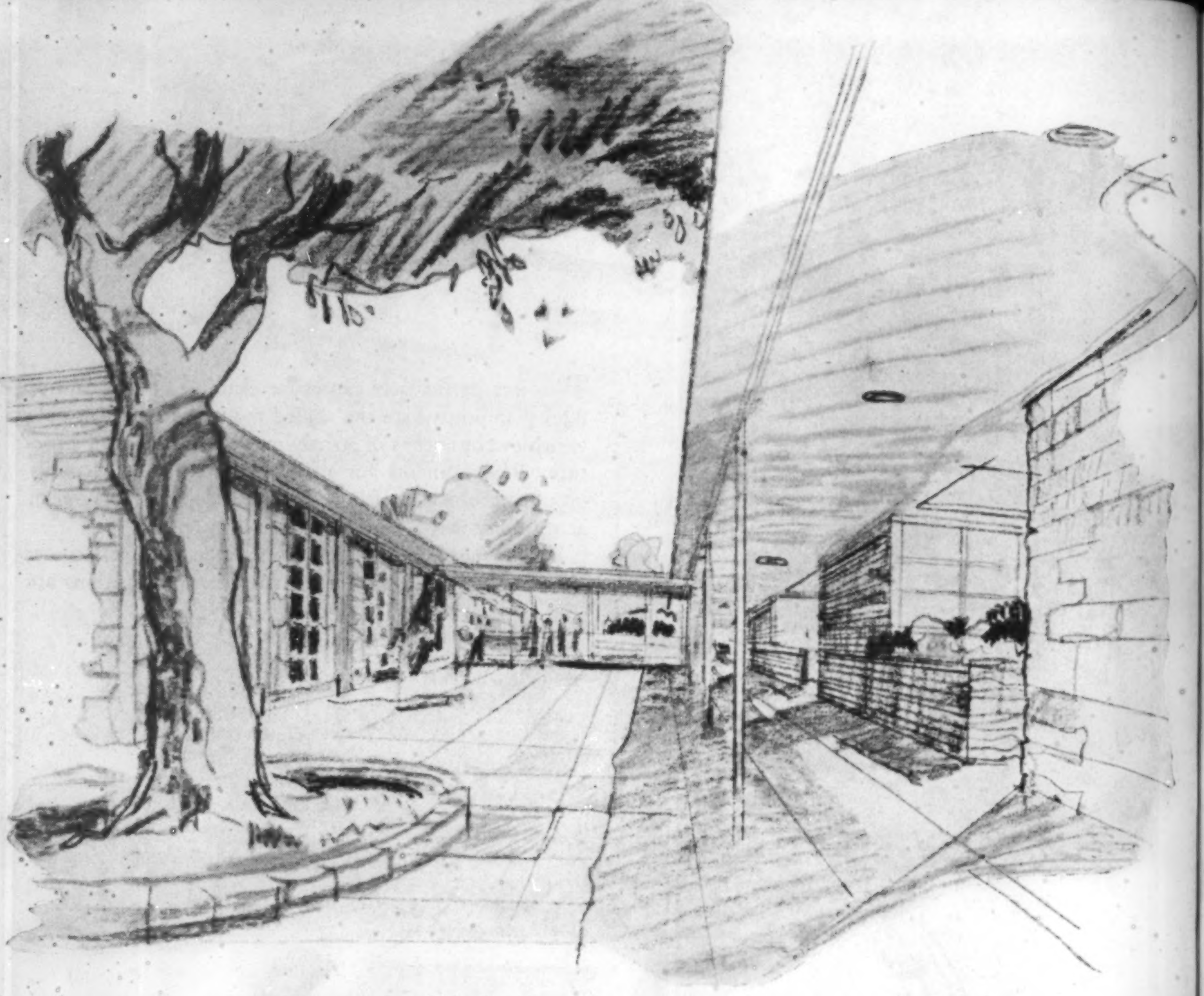
Ernest J. Kump Company, Consultants and Architects



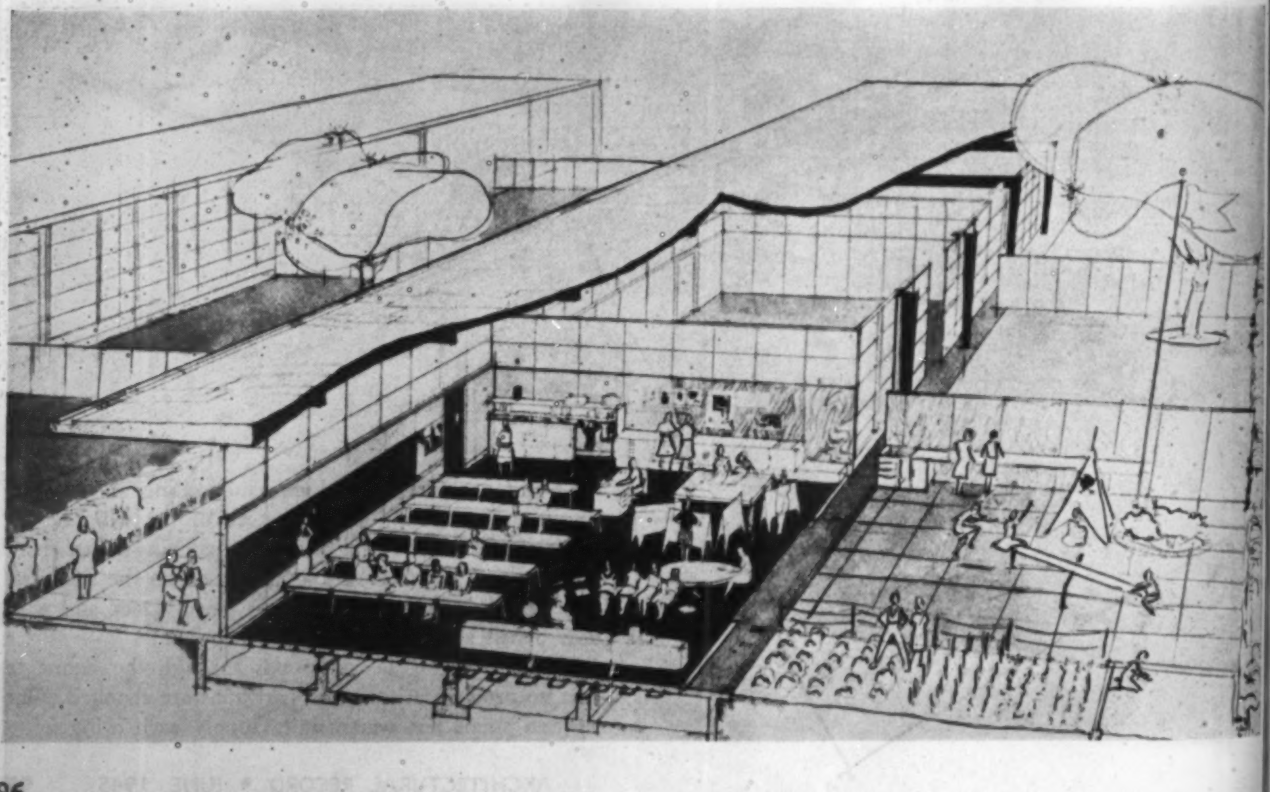
This is a particularly expressive example of the kind of fluid planning which the skilled modern architect is able to achieve by means of strictly modular design and structure. The elements for neighborhood use are handily grouped at the entrance, with the needed combination of accessibility and isolation.

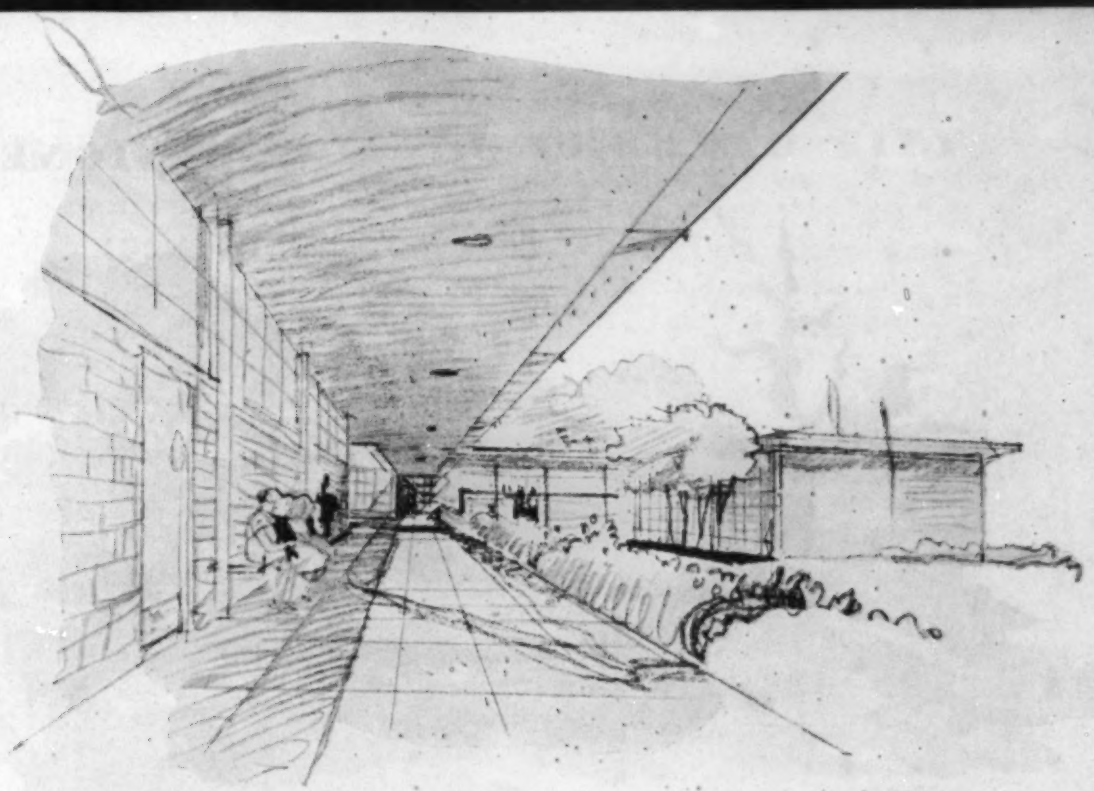
Each wing or unit is conceived as an open loft space; all windows, walls, end walls, and interior partitions are light and non-structural. Floor and ceiling are covered continuously throughout the length of the wing before partitions are set, to avoid need for patching when there are changes. These partitions are based on the universal 4-foot module and are screwed in place. Door and window panels are interchangeable with them.

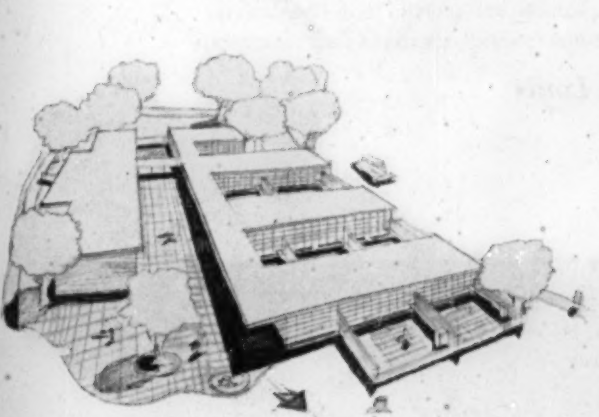
Radiant heating is continuous through the floors, so that no problem arises when partitions are changed. One or two small hot water units supply each wing.



Plans on right-hand page suggest the many variant arrangements that can be made with the single classroom type shown below in cut-away section

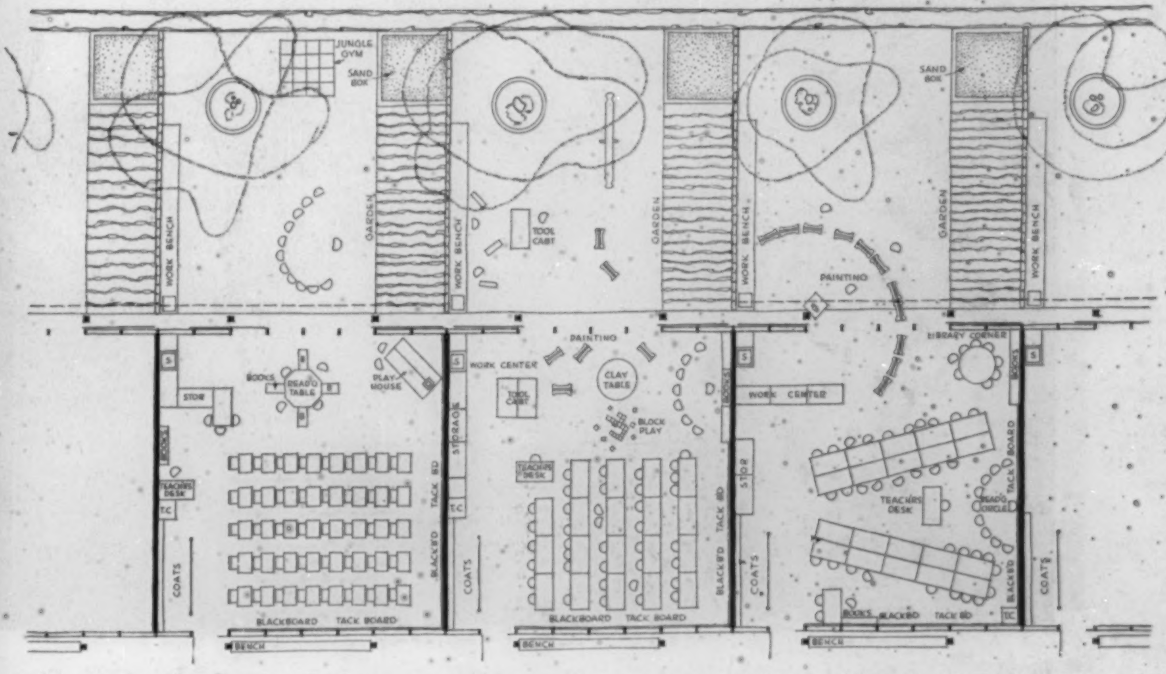




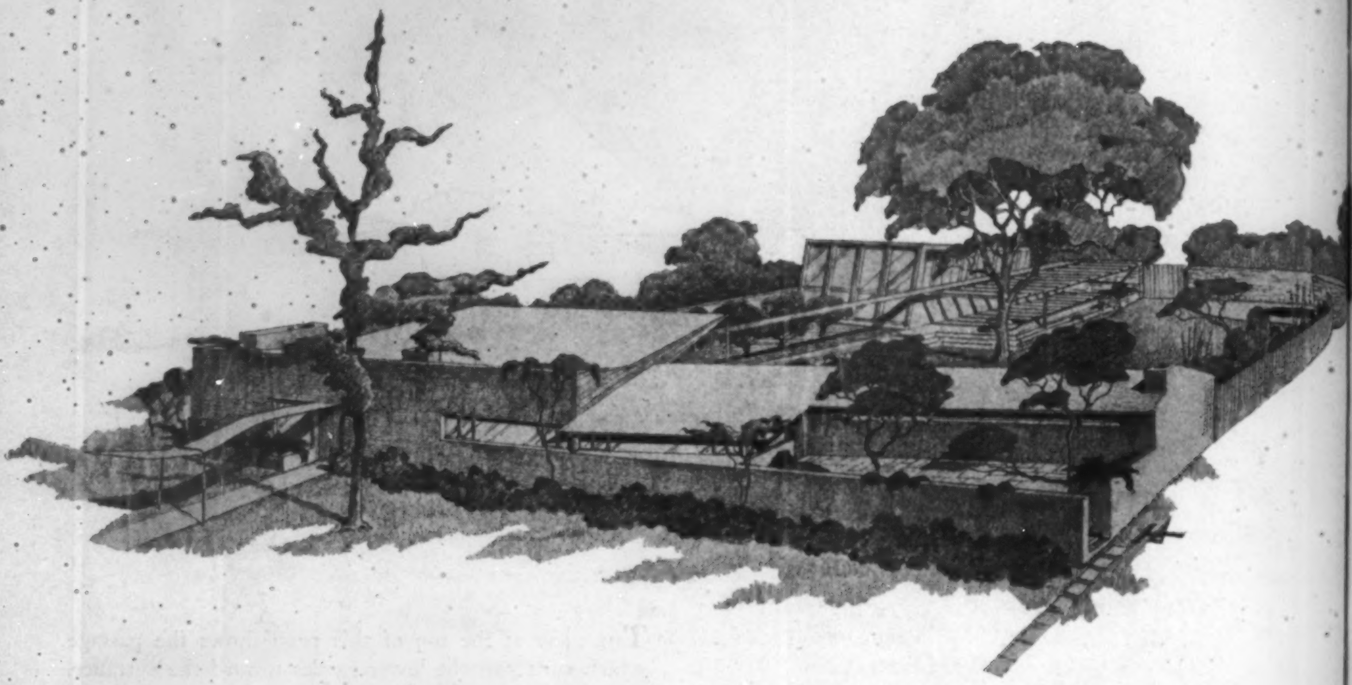


The view at the top of this page shows the passage which runs past the lower grades toward the entrance. The nursery unit is to the right. On the opposite page is seen the main longitudinal passage. In this school there is carried forward the development of the square indoor classroom with attached square outdoor classroom. The latter is arranged so as to include an individual garden strip along one side and a work bench along the other. Trees are used for shade, but in other schemes now under development the architects have used overhead canopies set on posts to shade the work bench.

Classroom storage is by means of interchangeable, flexible, easily movable units, illustrated in "Time-Saver Standards," on page 114.

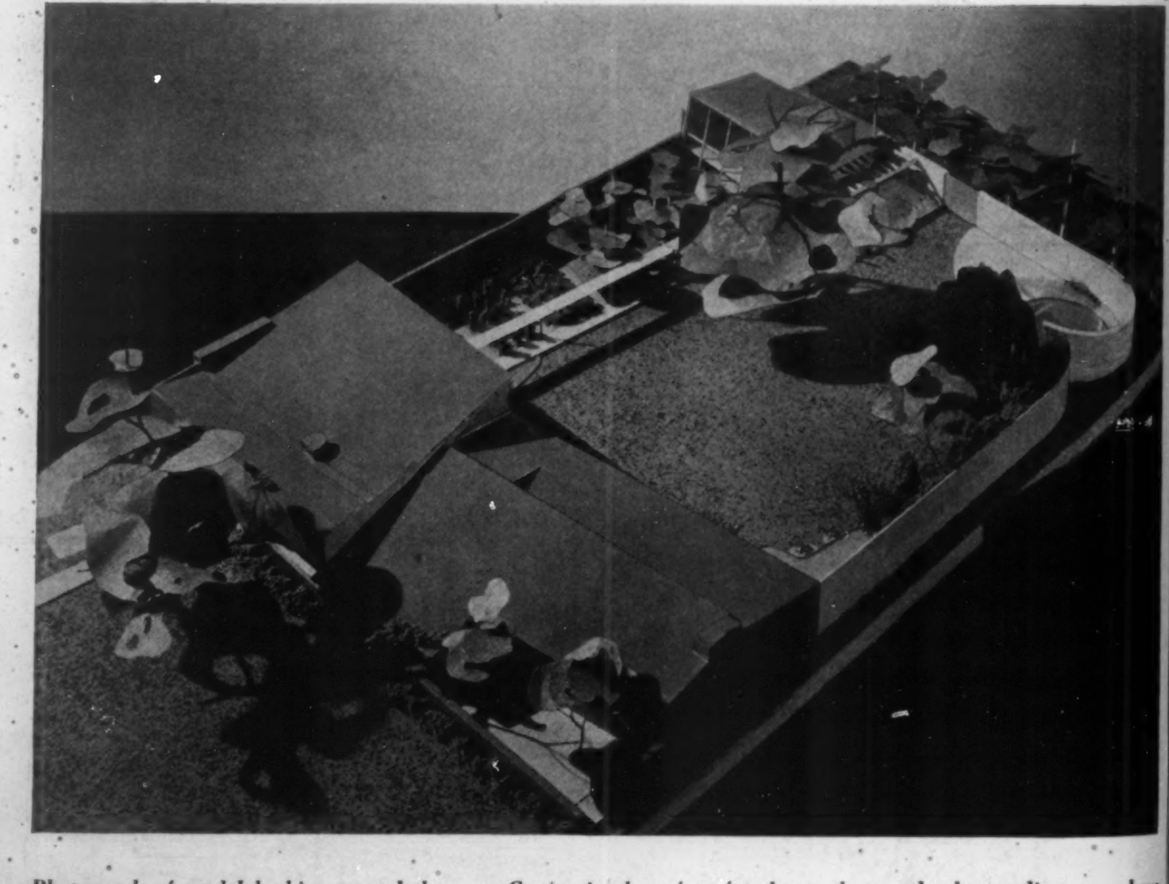

JUNGLE GYM
SAND BOX
SAND BOX
GARDEN
WORK BENCH
TOOL CABT
PAINTING
PAINTING
LIBRARY CORNER
BOOKS
READ'G TABLE
PLAY HOUSE
STOR
WORK CENTER
TOOL CABT
CLAY TABLE
BLOCK PLAY
STORAGE
TEACHR'S DESK
T.C
COATS
BLACKB'D
TACK BD
BLACKBOARD
TACK BOARD
BENCH
STOR
TEACHR'S DESK
READ'G CIRCLE
BOOKS
0
5
10
15
20
25

DESIGNED FOR



His own Postwar House for Urban St. Louis

by Harris Armstrong, Architect



Photograph of model looking toward the rear. Garage is about four feet lower than grade; has studio space above

COUNTRY LIFE IN THE CROWDED CITY

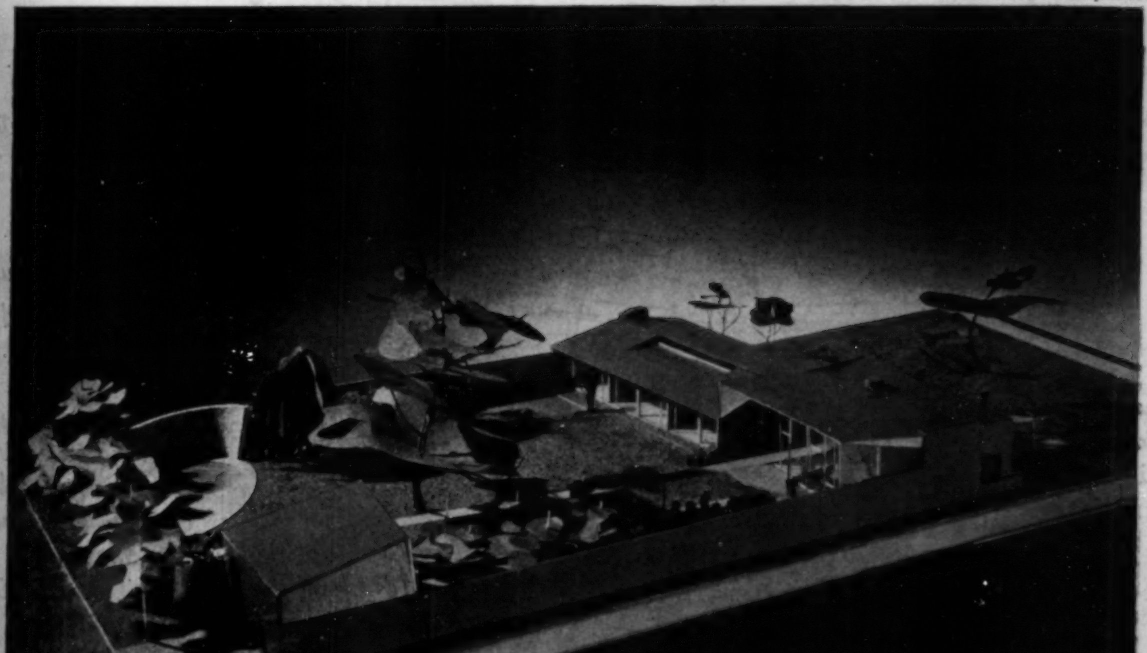
To bring the principal advantages of country life into the city is the basic objective of this plan. It is to be built in an old neighborhood in St. Louis, for a family of five—Harris, Louise, Joan, Jeffrey and John—most of whom have spent their entire lives in suburbs and country. Hence the exceptional degree of integration of indoors and out, of garden development, of provisions for privacy.

The lot is 100 ft. wide, 213 deep, and faces north. Using the large south-facing glass areas (with overhang to protect against summer sun) it is possible to make the enclosed garden an actual exterior projection of the house plan. The various angling lines of the plan are intended to open the house toward the center of the garden, as well as to relieve somewhat the too great rectangularity of the plot.

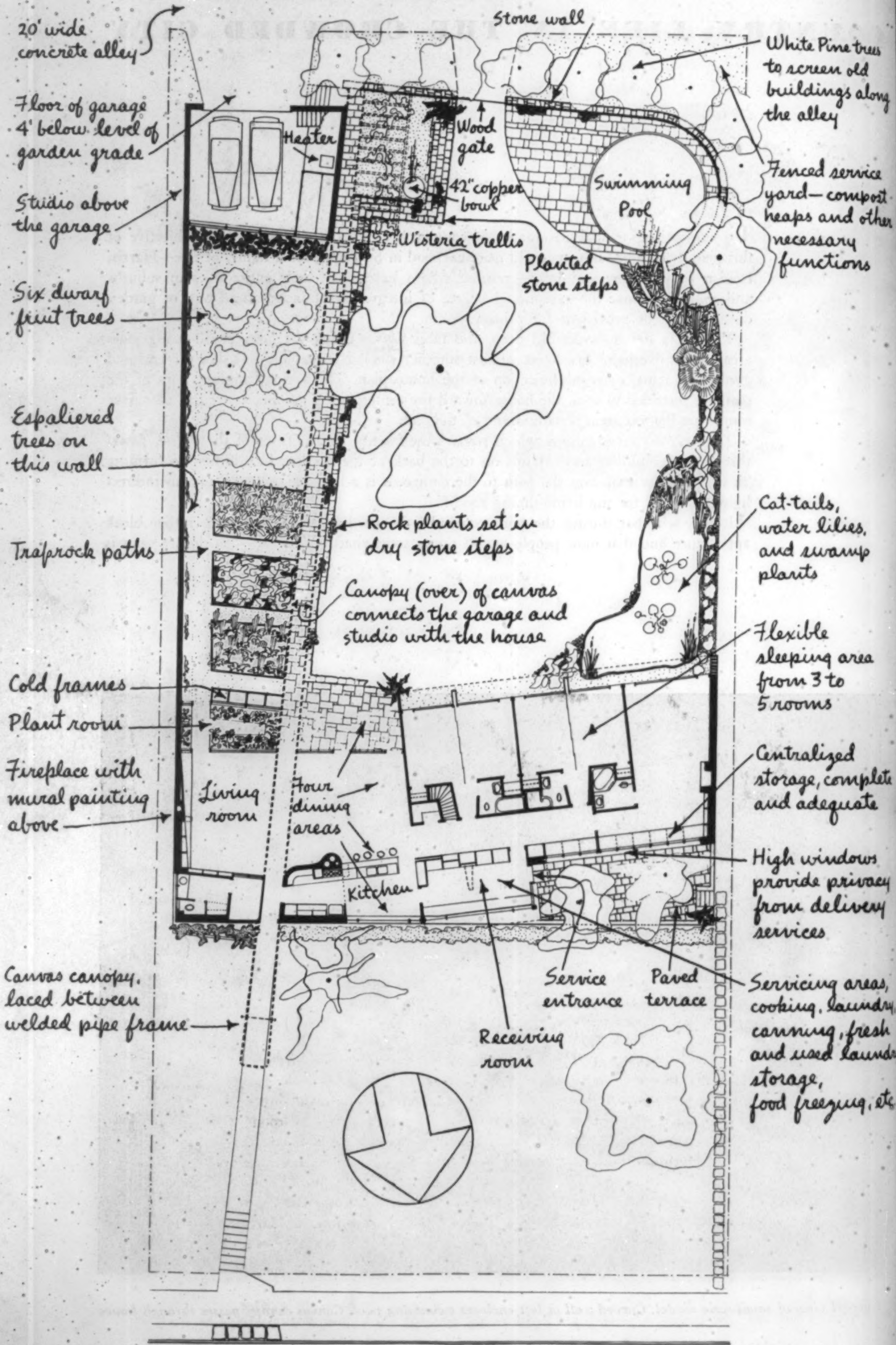
The yellow canvas canopy which starts some twenty feet in front of the house, passes through the building and extends on to the back of the garden. In addition to forming "a wet weather roof over the path to the garage, it is a spatial integrator and an indirect lighting source for the living-dining room."

It was felt that during the winter months the garden would present a rather bleak appearance and that most people would prefer somewhat more sense of enclosure than is.

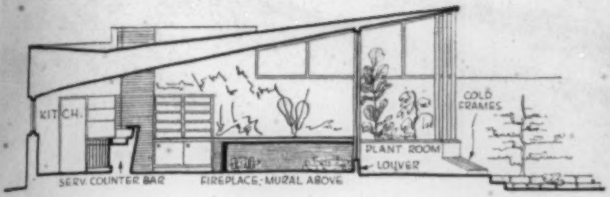
Ben Schnall photos

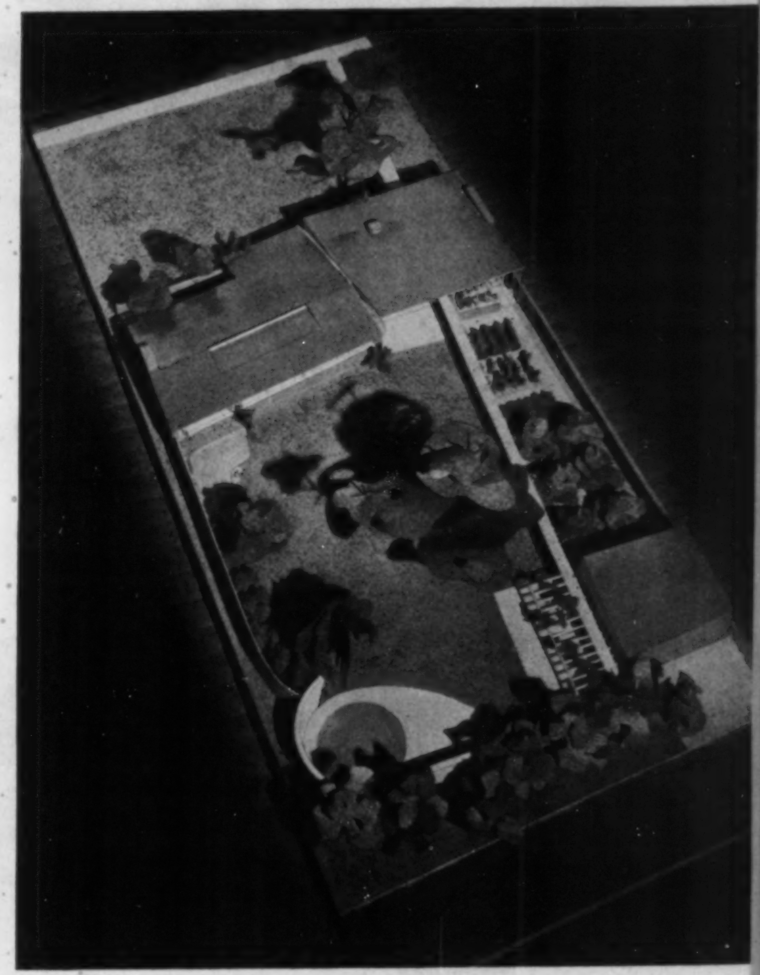


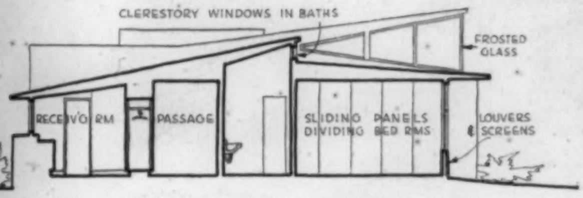
Over-all view of small-scale model. Curved wall at left encloses swimming pool. Canvas canopy passes through house


20' wide concrete alley
Floor of garage 4' below level of garden grade
Studio above the garage
Heater
Six dwarf fruit trees
Espaliered trees on this wall
Traprock paths
Cold frames
Plant room
Fireplace with mural painting above
Living room
Canvas canopy, laced between welded pipe frame
Stone wall
Wood gate
42" copper bowl
Wisteria trellis
Planted stone steps
Swimming Pool
White Pine trees to screen old buildings along the alley
Fenced service yard—compost heaps and other necessary functions
Rock plants set in dry stone steps
Canopy (over) of canvas connects the garage and studio with the house
Cat-tails, water lilies, and swamp plants
Flexible sleeping area from 3 to 5 rooms
Four dining areas
Kitchen
Centralized storage, complete and adequate
High windows provide privacy from delivery services
Service entrance
Paved terrace
Receiving room
Servicing areas, cooking, laundry, canning, fresh and used laundry storage, food freezing, etc

Left: section through kitchen, living-dining room and plant room. Left, below: section through receiving room and bedroom


KITCH.
SERV. COUNTER BAR
FIREPLACE-MURAL ABOVE
PLANT ROOM
LOUVER
COLD FRAMES

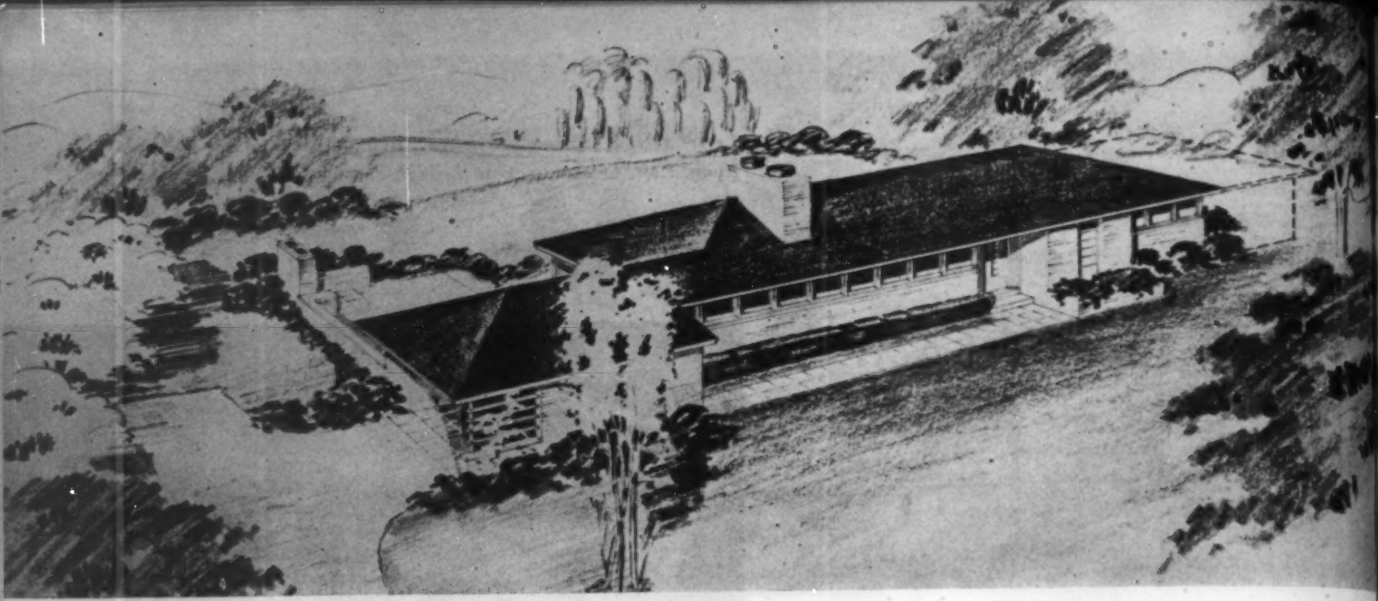



CLERESTORY WINDOWS IN BATHS
FROSTED GLASS
RECEIV'G RM
PASSAGE
SLIDING PANELS DIVIDING BED RMS
LOUVERS & SCREENS

afforded by plate glass, hence the plant room, located under the overhanging roof projections, to furnish bloom and foliage in winter.

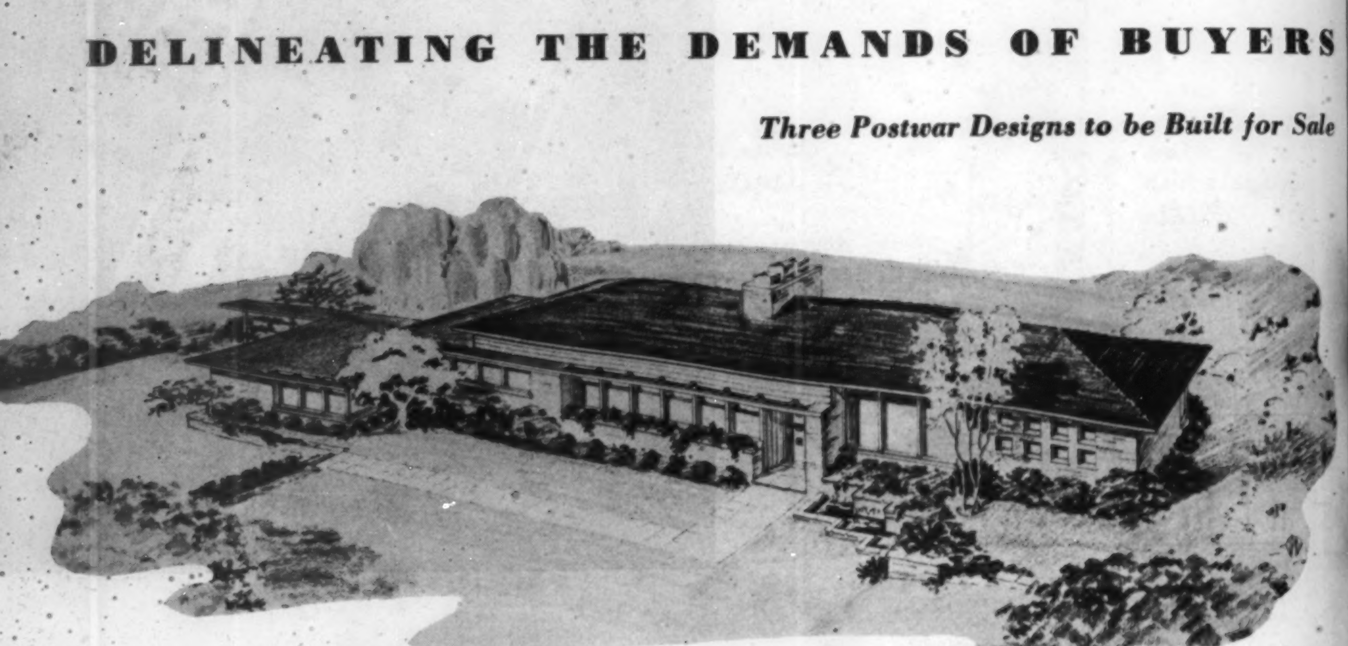
The house plan itself has been developed to give the greatest flexibility consistent with the expected use. "The open plan will not work," says Mr. Armstrong, "if it is wide open all of the time. Some activities must be segregated from the group. In this plan, similar activities occur in related areas." The sliding panels down the center of the three bedrooms permit more flexible use when some members of the family are away at college or camps.

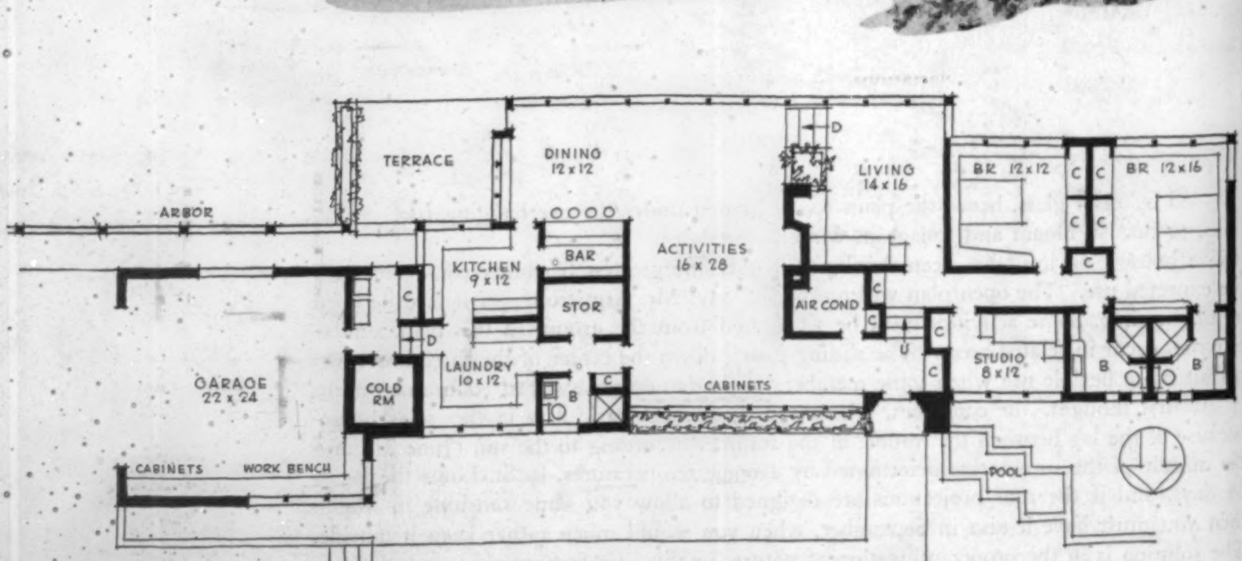
"At first thought," he continues, "there appears to be a basic flaw in the 'solar house' because of the lag between the middle of the summer according to the sun (June 21) and the middle of the summer as determined by average temperatures. In St. Louis the lag is 34 days, and if the roof projections are designed to allow you some sunshine in March then you must have it also in September, when you would much rather keep it outside. The solution is in the proper utilization of nature, in this case fast-growing vines (moonvine, morning glories, cardinal creepers, etc.) which are planted at the eaves drip lines in the spring and climb up strings laced through eyelets at the eaves. These vines will climb to the top and then spread out to join horizontally, forming a perfect natural sunshade which will last until the first killing frost."

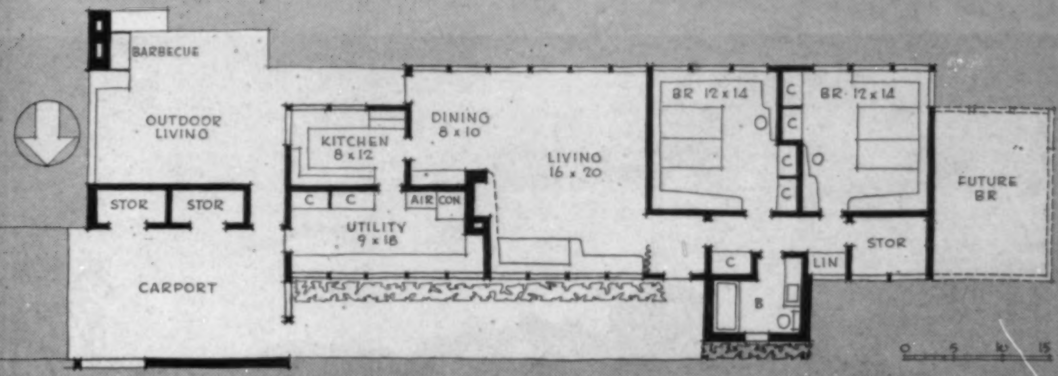


DELINEATING THE DEMANDS OF BUYERS

Three Postwar Designs to be Built for Sale

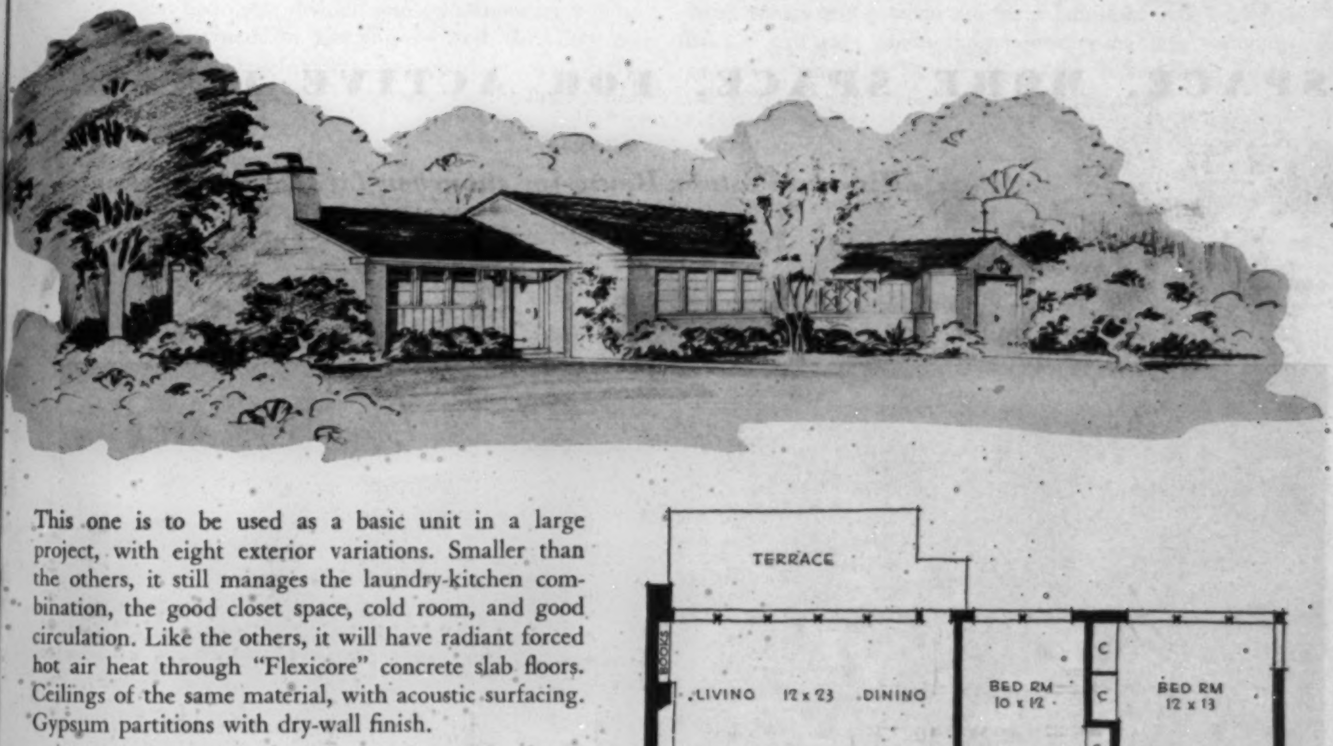



TERRACE
DINING 12 x 12
LIVING 14 x 16
BR 12 x 12
BR 12 x 16
ARBOR
ACTIVITIES 16 x 28
KITCHEN 9 x 12
BAR
STOR
AIR COND
STUDIO 8 x 12
LAUNDRY 10 x 12
GARAGE 22 x 24
COLD RM
CABINETS
CABINETS
WORK BENCH
POOL
C
D
U
B
0 5 10 15

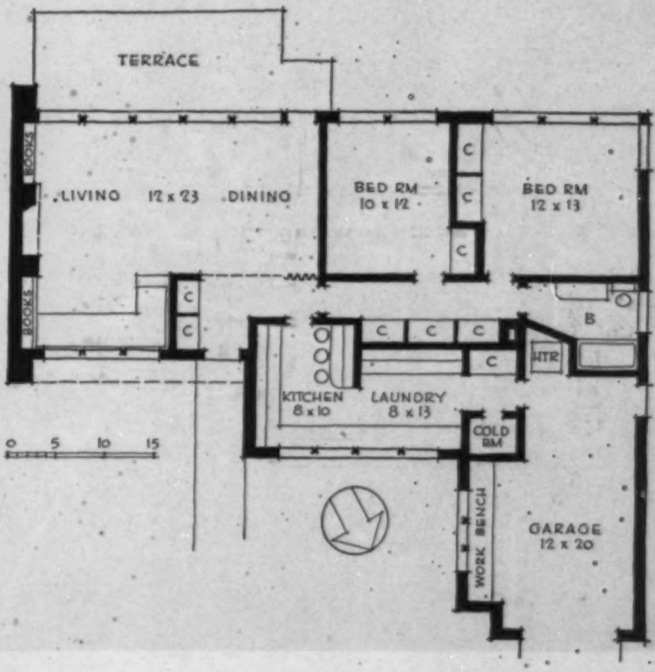

BARBECUE
OUTDOOR LIVING
STOR
STOR
CARPORT
KITCHEN 8 x 12
C
C
DINING 8 x 10
AIR CON
UTILITY 9 x 18
LIVING 16 x 20
BR 12 x 14
C
BR 12 x 14
C
C
C
FUTURE BR
STOR
LIN
C
B
0 5 10 15

Richard B. Pollman, Designer

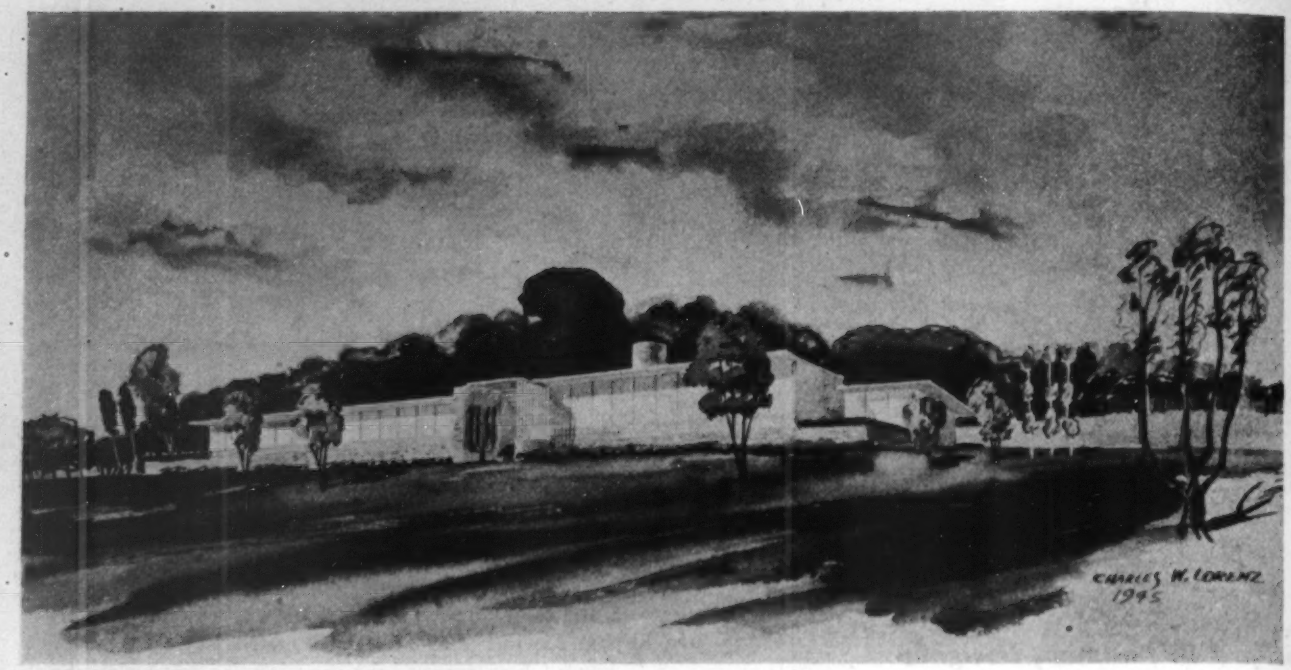
If all operative builders would do as well as this, the postwar boom would really provide better living. Each design has been done for an actual purchaser, and together they are representative of "the type of house I have received the most inquiry for during the year." The one above was designed for expansibility, the car port and extra bedroom to be added later.



This one is to be used as a basic unit in a large project, with eight exterior variations. Smaller than the others, it still manages the laundry-kitchen combination, the good closet space, cold room, and good circulation. Like the others, it will have radiant forced hot air heat through "Flexicore" concrete slab floors. Ceilings of the same material, with acoustic surfacing. Gypsum partitions with dry-wall finish.


TERRACE
BOOKS
LIVING 12 x 23 DINING
BOOKS
BED RM 10 x 12
C
C
C
BED RM 12 x 13
C
C
C
C
C
C
B
HTR
KITCHEN 8 x 10
LAUNDRY 8 x 13
COLD RM
WORK BENCH
GARAGE 12 x 20
0 5 10 15

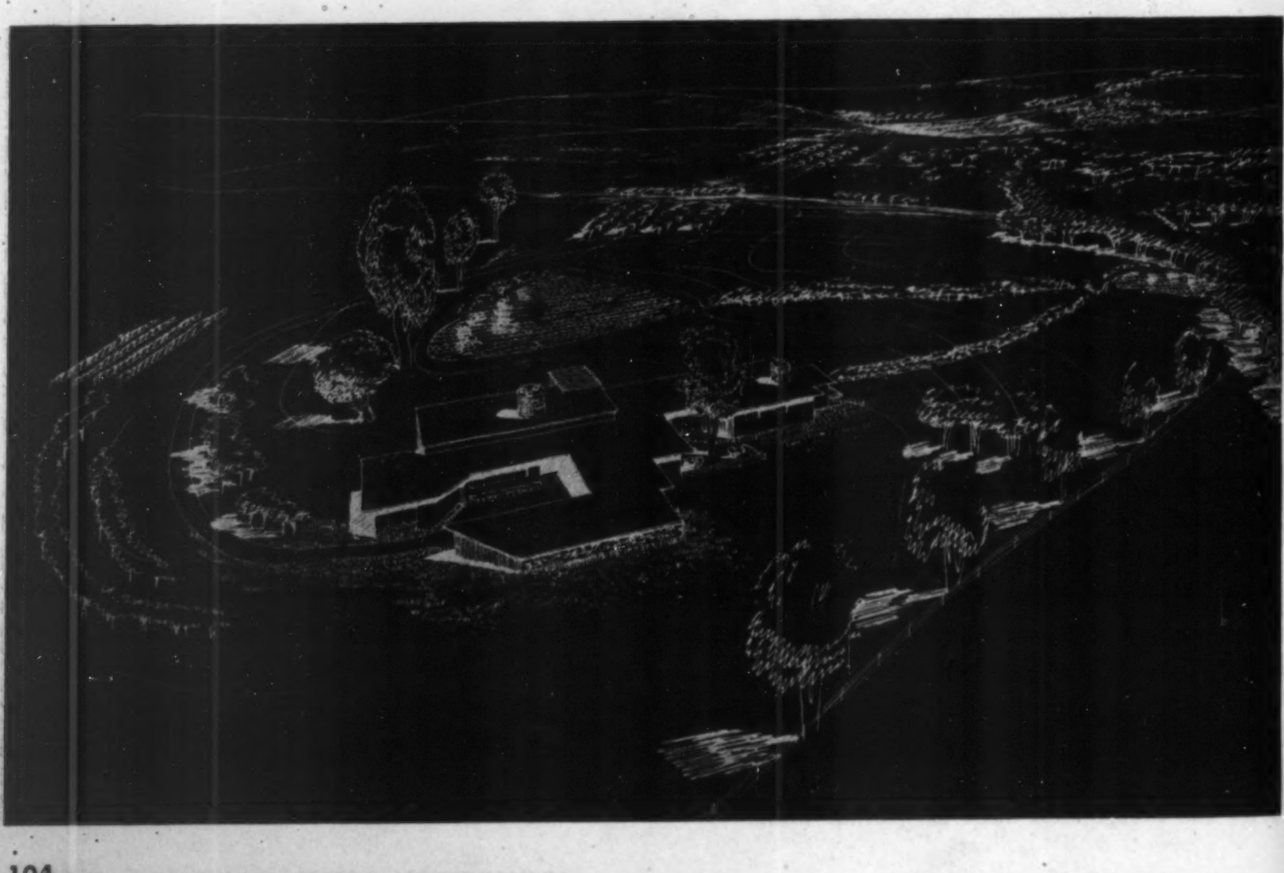
The larger house (opposite page) provides more extensively for varied activities of the family. The small living room gives a good conversational space, can also double as guest room. More importantly, it frees the larger "activities" room for less formal and more varied functions. Windows will be sealed with double, sealed glass; ventilation will be mechanical. Extensive built-ins and storage areas mark the postwar world.

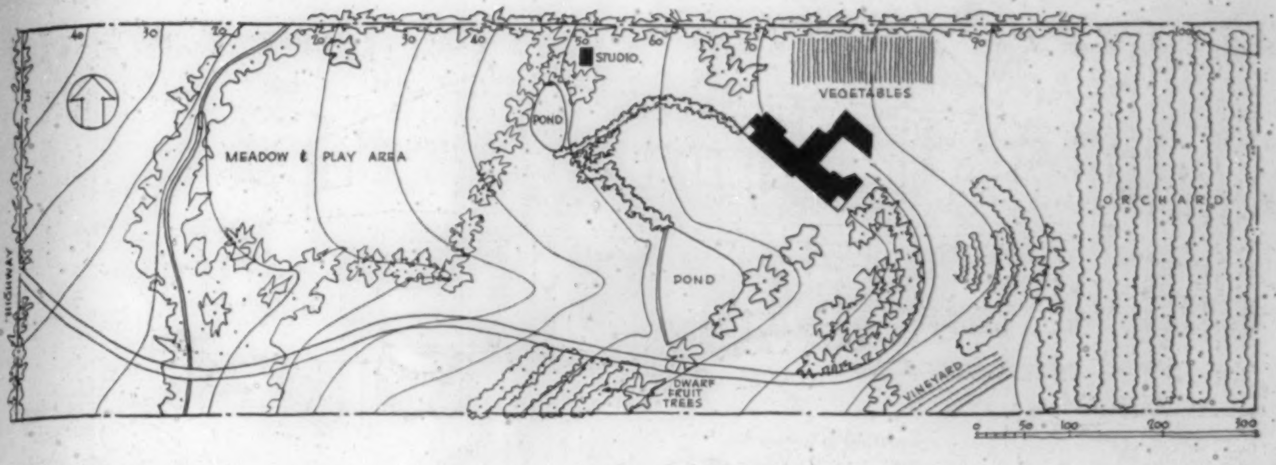

CHARLES W. LORENZ
1945

SPACE, MORE SPACE, FOR ACTIVE LIVING

His own Postwar House for suburban Living, near St. Louis

by Charles W. Lorenz, Architect



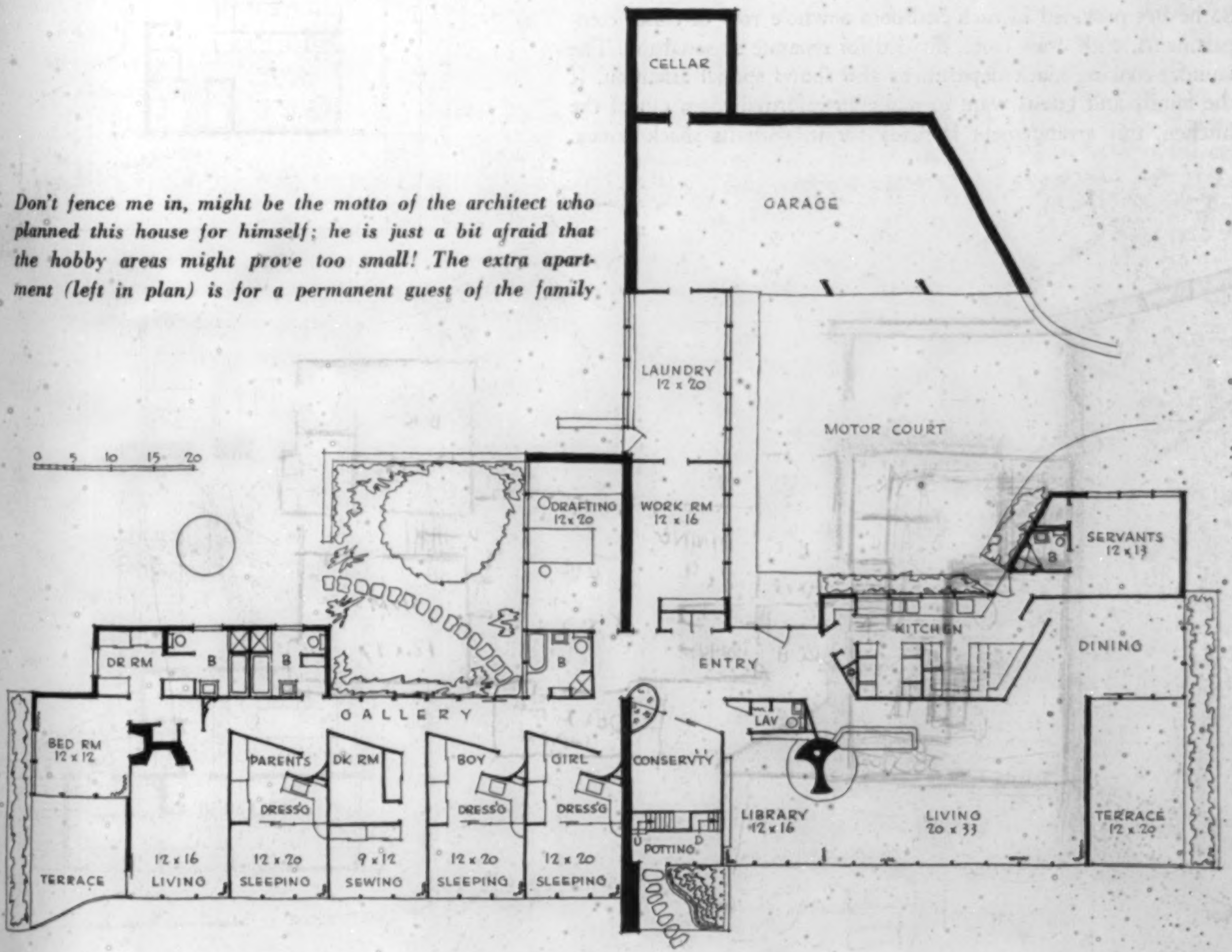

HIGHWAY
MEADOW & PLAY AREA
POND
STUDIO
VEGETABLES
POND
ORCHARD
DWARF FRUIT TREES
VINEYARD
0 50 100 200 300

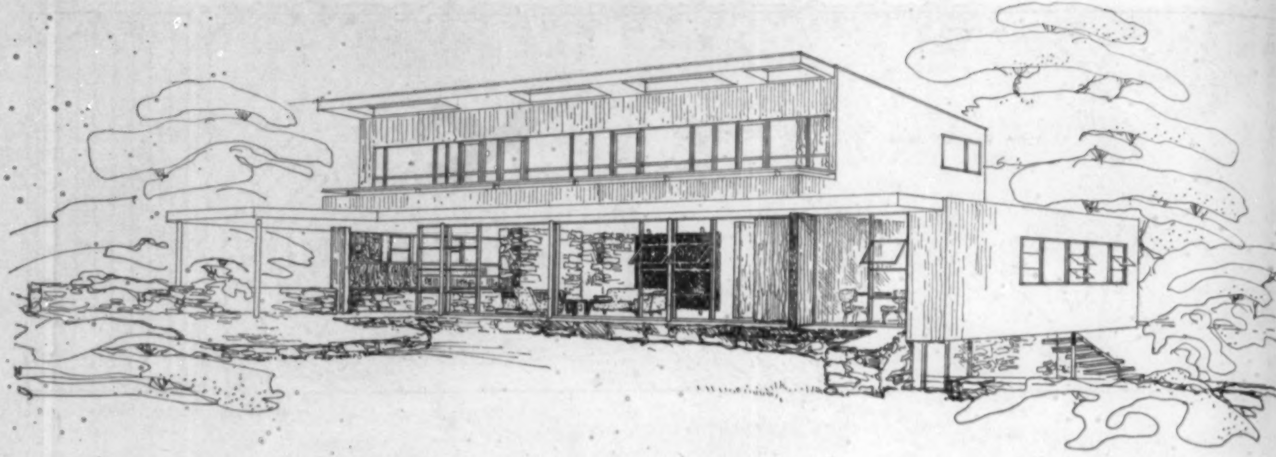
While one architect (see page 99) is moving into the city, this one is leaving St. Louis for the country, to build his idea of a postwar home. With space an obvious objective (obvious in the plan) he has been preparing a 12-acre site complete with vegetable garden, vineyard and orchard, plus ponds. Principal rooms will face a fine view to the southwest.

The typical bedroom, divided into two zones by a glass partition, is designed for sleeping in fresh air, dressing in warm comfort. Dressing areas have built-in cases, dressing table and lavatory, to ease rush hours at the bathrooms.

"The oblique walls of bedroom units," writes Mr. Lorenz, "will lend themselves to the display of water colors, oils, and photographs which I make, as well as those of artist and architect friends. You will note the absence of bedroom doors. Privacy is obtained by the placing of the walls, and noises will be trapped by acoustic surfaces. The furniture *will* go through!" The spacious work rooms and kitchen are for a family of active hobbyists — painting, photography, jewelry-making, weaving, gardening and fancy cooking. If the rooms seem large, the architect thinks they may prove too small!

Don't fence me in, might be the motto of the architect who planned this house for himself; he is just a bit afraid that the hobby areas might prove too small! The extra apartment (left in plan) is for a permanent guest of the family

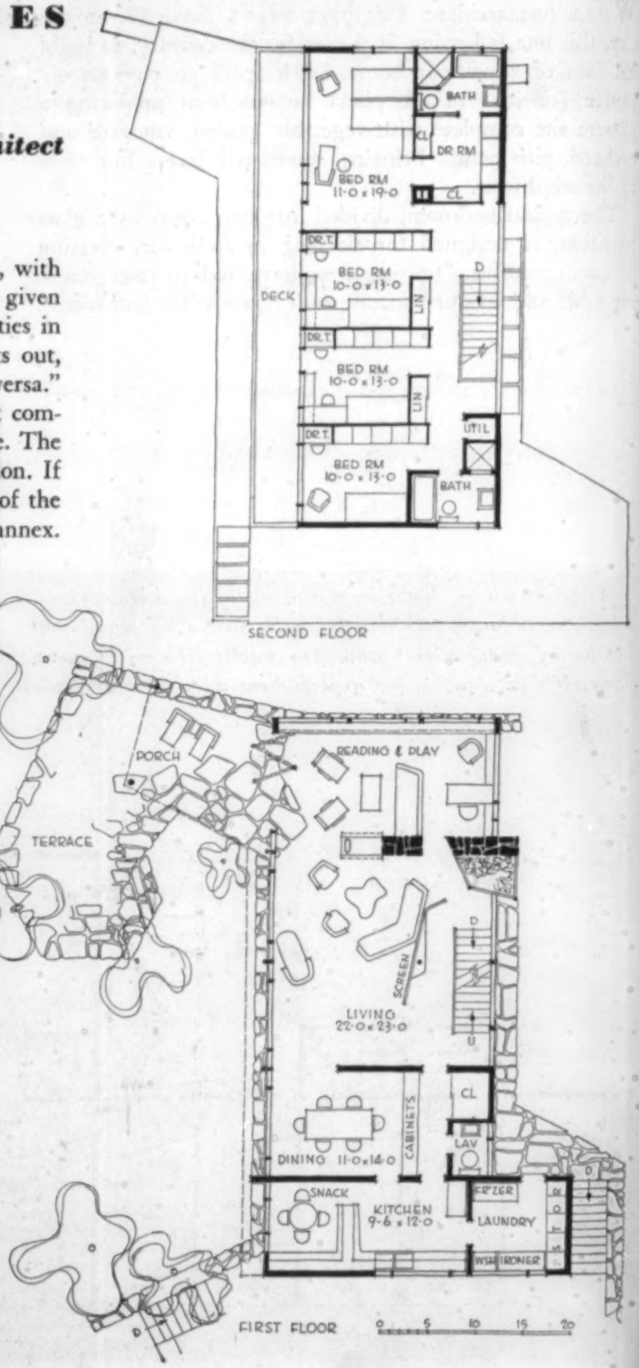

CELLAR
GARAGE
LAUNDRY 12 x 20
MOTOR COURT
0 5 10 15 20
DRAFTING 12 x 20
WORK RM 12 x 16
SERVANTS 12 x 13
B
KITCHEN
DINING
DR RM
B
B
B
ENTRY
GALLERY
LAV
BED RM 12 x 12
PARENTS
DK RM
BOY
GIRL
CONSERVTY
DRESS'G
DRESS'G
DRESS'G
LIBRARY 12 x 16
LIVING 20 x 33
TERRACE 12 x 20
POTTING
TERRACE
12 x 16 LIVING
12 x 20 SLEEPING
9 x 12 SEWING
12 x 20 SLEEPING
12 x 20 SLEEPING

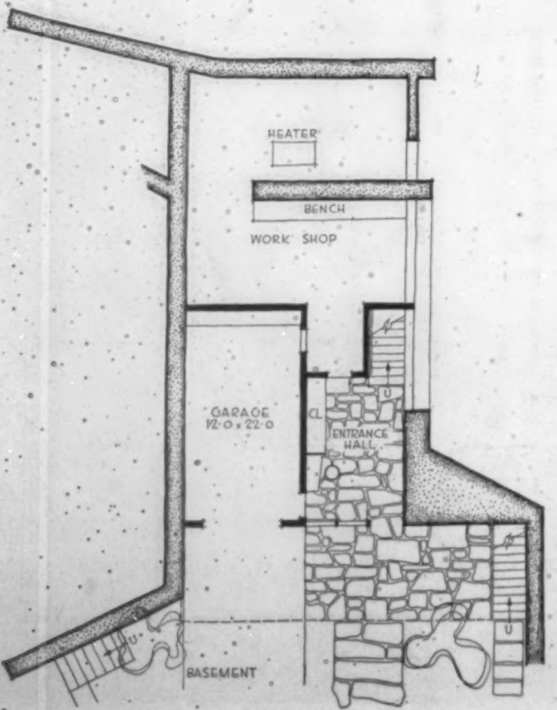


FOR NEW CONVENIENCES

Samuel Glaser, Architect

Besides providing flexible living areas, both inside and out, with the full freedom of modern planning, the architect has here given special attention to extra conveniences in bedrooms and niceties in the kitchen. "There always has been a problem," he points out, "of where to store winter clothes, come summer, and vice versa." So he has provided in each bedroom a whole row of closet compartments, with draw cases, divided for separate seasonal use. The laundry-cooking-snack department also shows special attention. If the family and guests want to make an informal room out of the kitchen, this arrangement is ready for it, with its snack annex.

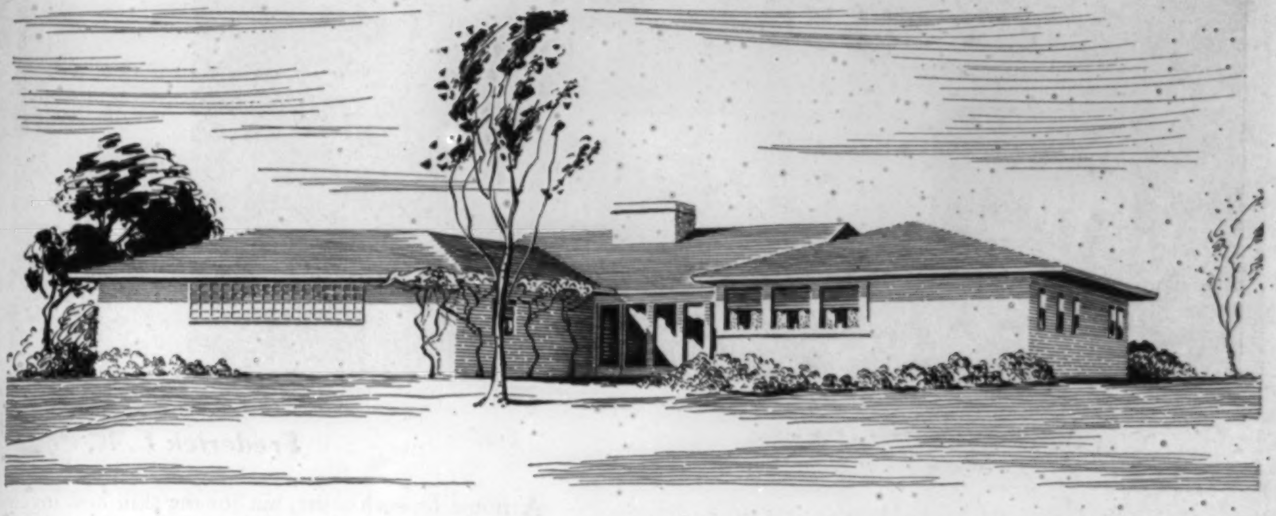

BATH
DR RM
BED RM
11-0 x 19-0
CL
DR.T.
BED RM
10-0 x 13-0
DECK
LIN
D
DR.T.
BED RM
10-0 x 13-0
LIN
UTIL
DR.T.
BED RM
10-0 x 13-0
BATH
SECOND FLOOR
PORCH
READING & PLAY
TERRACE
SCREEN
D
LIVING
22-0 x 23-0
U
CABINETS
CL
LAV
DINING 11-0 x 14-0
SNACK
KITCHEN
9-6 x 12-0
FR'ZER
LAUNDRY
WSH'IRONER
D
D
FIRST FLOOR
0 5 10 15 20


HEATER
BENCH
WORK SHOP
GARAGE
12-0 x 22-0
CL
U
ENTRANCE HALL
U
U
BASEMENT

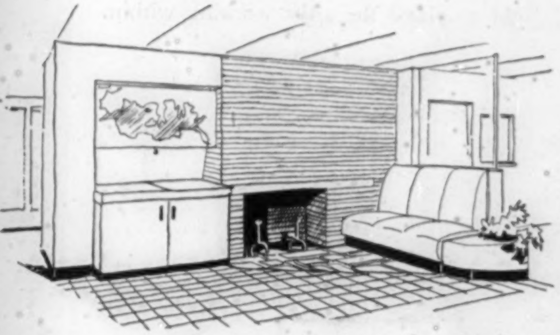
DESIGN FOR LIVING WITHOUT SERVANTS

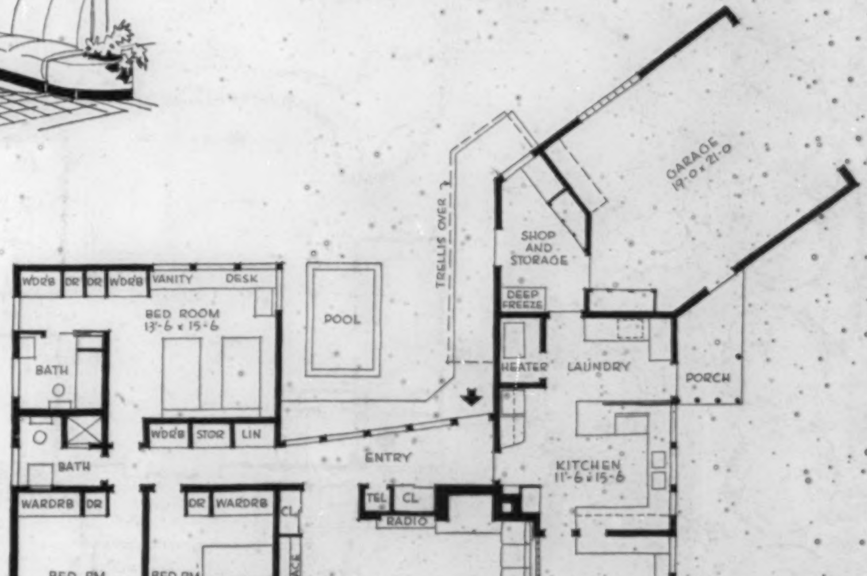
Proposed Residence for Dr. and Mrs. Nelson Morris, Rossford, Ohio

Bellman, Gillett and Richards, Architects and Engineers

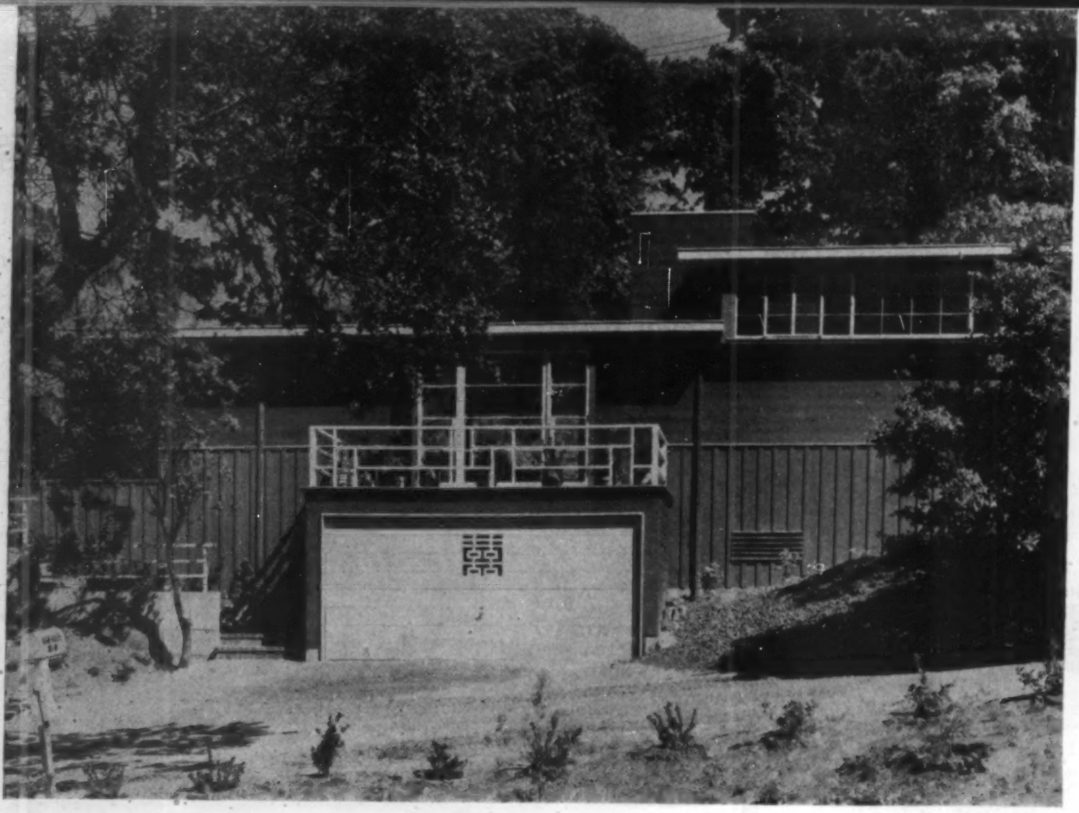


HERE is another instance showing that the new crop of houses will benefit from added thought to kitchen, laundry, work and storage areas. Kitchen area gradually flows outward through laundry, shops and storage, porch and garage. Bedrooms have tray cupboards plus wardrobes, both designed for prefabrication. Built-ins add further convenient storage. The telephone booth is especially appreciated because the client is a doctor. And the map base and radio cabinet bring his hobbies properly into the living room. Radiant heat with quick controls to balance with solar heat.




GARAGE 19-0 x 21-0
TRELLIS OVER
SHOP AND STORAGE
DEEP FREEZE
WDR'B
DR
DR
WDR'B
VANITY
DESK
BED ROOM 13'-6 x 15-6
POOL
HEATER
LAUNDRY
PORCH
BATH
WDR'B
STOR
LIN
ENTRY
BATH
KITCHEN 11'-6 x 15-6
WARDRB
DR
DR
WARDRB
CL
TEL
CL
RADIO
BED RM 11-6 x 15-6
BED RM 11-6 x 15-6
BOOKS
DESK & WORK SPACE
LIVING 17-0 x 23-6
DINING 12-0 x 15-6
GRILLE
SCREENED PORCH
0
5
10
15
20

Garage is angled to prevent it from dominating the front of the house without complicating the drive-in



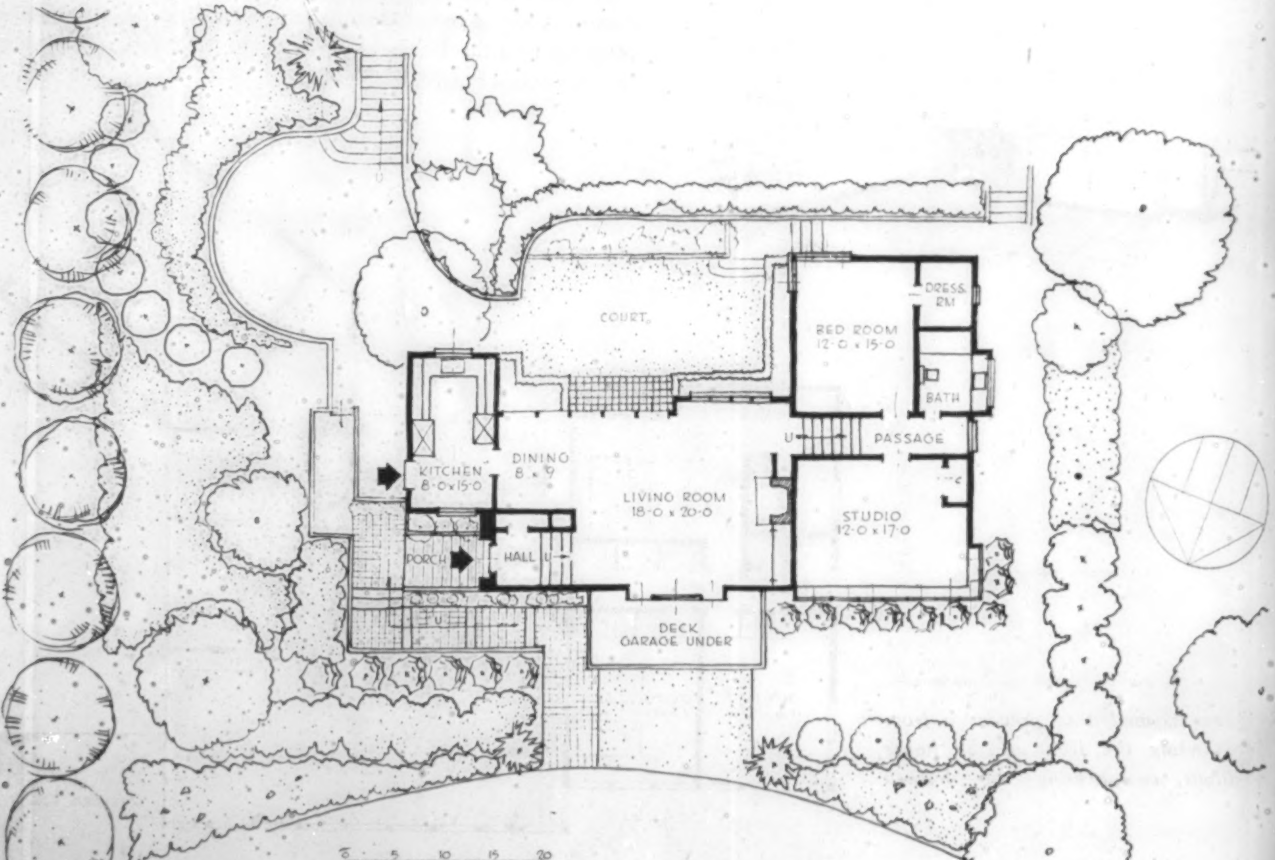
Frederick L. R. Confer

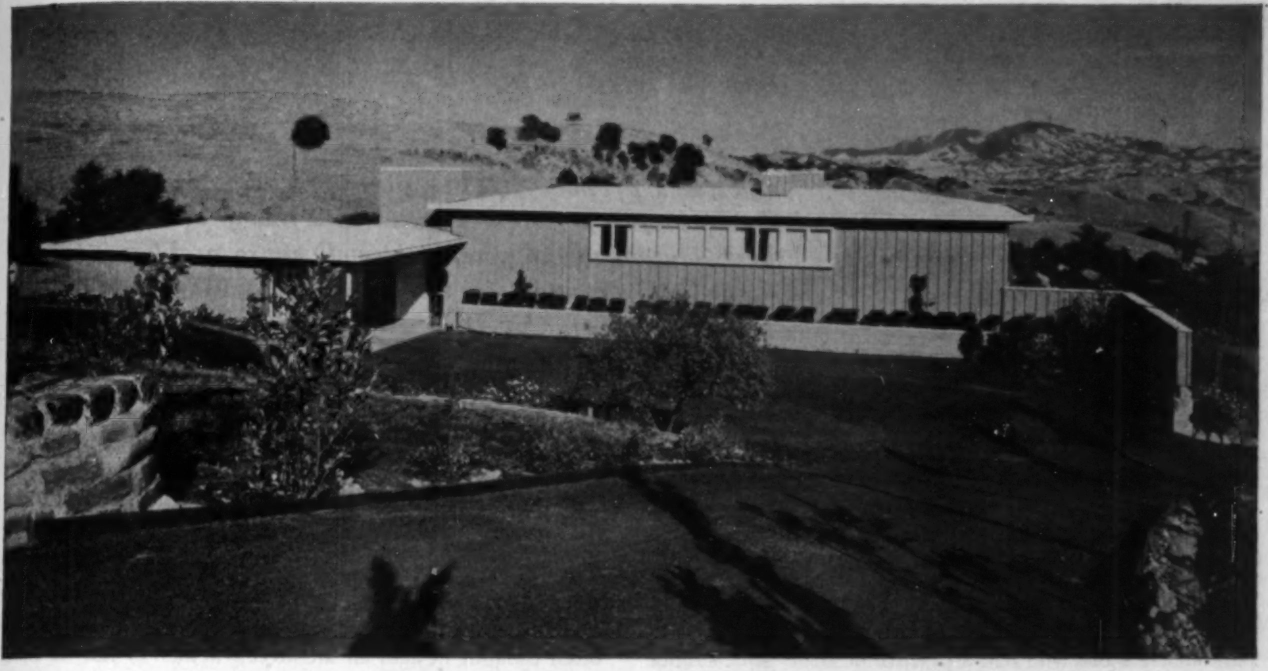
FOR AN UP-SLOPING SITE

House for Mr. and Mrs. Robert Rose

Orinda, California

A HOUSE on such a site, but for the skill and ingenuity of an architect, could have been a monstrous thing. But the architectural hazards of a steeply up-sloping lot, and the front garage requirement, were absorbed in a composition which, especially with the shadow lines of the roofs, keep the house not only low but also intriguing. The interest of the studio exterior ought to please the artist working within.


COURT
BED ROOM
12-0 x 15-0
DRESS.
RM
BATH
PASSAGE
U
KITCHEN
8-0x15-0
DINING
8 x 9
LIVING ROOM
18-0 x 20-0
STUDIO
12-0 x 17-0
PORCH
HALL
U
U
DECK
GARAGE UNDER
0
5
10
15
20



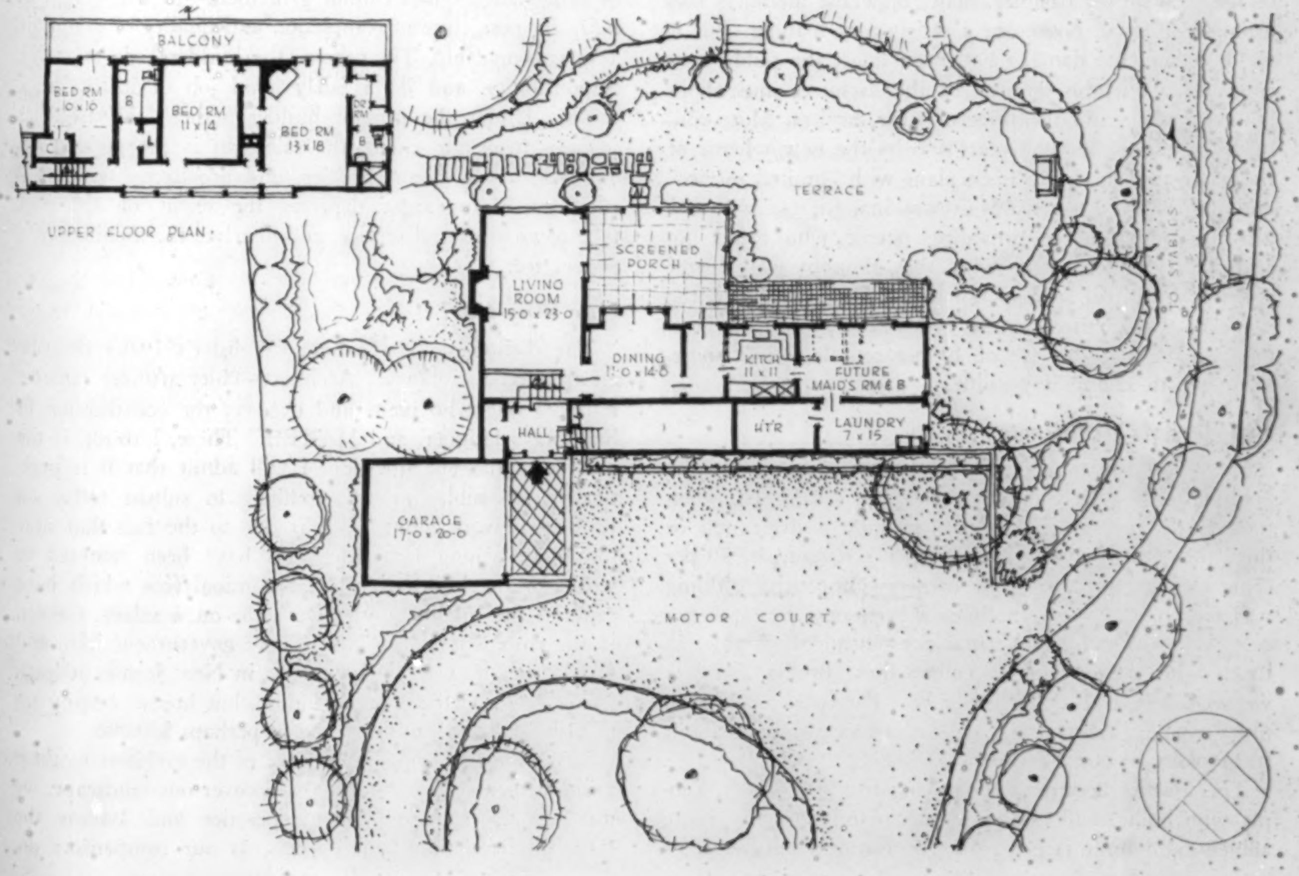
Architect

FOR A DOWN-SLOPING SITE

House for Mr. Hamilton McCaughey

Monte Vista, California

The reverse problem—a down-sloping site—is easier to handle, but still requires care. Here it results in a logical split-level house. The slightly-higher-than-one-story front is held down by horizontal lines of roof, window strip and long planting area raised above the drive level. Orientation was particularly fortunate in that the prevailing wind is from the north, or front, leaving sheltered terrace to south.


BALCONY
BED RM 10 x 10
B
BED RM 11 x 14
L
C
BED RM 13 x 18
B
UPPER FLOOR PLAN
TERRACE
SCREENED PORCH
LIVING ROOM 15-0 x 23-0
DINING 11-0 x 14-8
KITCH 11 x 11
FUTURE MAID'S RM & B
C
HALL
HTR
LAUNDRY 7 x 15
GARAGE 17-0 x 20-0
TO STABLES
MOTOR COURT

THE SMALL HOUSE AND THE MASTER-BUILDER

By Kenneth W. Dalzell, A.I.A.

Questions of policy, ethics, practices, abilities, organization and personal preferences enter into this proposal. Is it the best solution to the perennial small house problem—for the home-building public, for the profession and for the individual architectural firm? Mr. Dalzell thinks it is. Do you?

"Of the million or more small houses to be built after the war, how many are to have the benefit of the architect? And just how?" In last November's issue of the Journal of the A.I.A., Henry Saylor asks this $64 question. Rather a ridiculous situation, is it not? Billions of dollars in new home construction, for millions of people, with profit to those who are able to produce. Some architects, particularly those who had a practice of large work cannot do this small work, admitting that they cannot profitably do a job under $50,000. There was a time, however, when many well-trained and just as capable architects did do this work, without much profit it is true, but with a reasonable degree of satisfaction. House design was used as a stepping stone to more important work, and a few of the architects later gained national recognition.

This procedure was later made impossible by the actions of the very ones who said they could not do the work profitably. They created the now defunct Small House Service Bureau, with its stock plans for $25 approved by the American Institute of Architects. The Institute subsequently withdrew its endorsement, largely at the insistence of the New Jersey Chapter, many of whose members had been doing small houses in a satisfactory manner. But it was too late, the damage had been done, the public was confused about the services of the architect and about both the value and the price of such services. More confusion was added a few years ago by the new scheme of the brain trusters, more stock plans with "limited service" and limited fees. Ostensibly it was inaugurated with the altruistic intention of providing people who could not afford an architect, with what they thought were better plans and a bit of service. But this scheme cheapened the value of the architect in the eyes of the public and certainly made a visible fee of 10 per cent look like something worth saving if possible.

Builders As Architects

What happened? The builders acquired copies of the books of stock plans and used them as a sales kit. Then they either had the plans revamped by a draftsman or they did it themselves, and laid great stress on the 10 per cent they were "saving" the owner. Competitive bidding was eliminated, and sometimes a brokerage fee of 5 per cent was paid a real estate man for putting the builder in touch with the owner. Of course these profits and fees were concealed and the owner was happy at "saving so much money," and at the same time have a house built from plans by a well-known architect.

The practice became a boomerang to the architect. People who built small houses in this manner became more affluent and built larger places or business buildings, or possibly were on the board of directors of the local bank at the time they were to build a new building. Result, why pay an architect? Many architects with a small practice were by now working for the builders, trying to compete with the stock-plan-redrafting-cost system. Some younger men became draftsmen for the builders, and John Q. Public, confused by our own ill-advised action, often thought he had an architect whether or not he paid him. So this is about where we stand today, and in this position we will be when the war ends—unless someone has the courage to acknowledge our mistakes and to start over. I mean start way back where we were before the Institute came into being, yes, before architecture was made a "profession."

The truth is we have set up a code of professional practice which, due to competition of our own making, is now outmoded. The builders, with the aid of capable architects, are doing a fairly creditable job, and the public seems to prefer the method now in vogue for houses up to $100,000 in our locality. They, the builders or developers, offer the very things the people want most, and which we, because of professional ethics cannot give them—to wit, *responsibility* for cost, time of completion and quality of materials and workmanship. The others (the builders) do take this responsibility, and do a fairly good job of it too, at a profit. Under the present builder-method, the architect seldom meets the client, the salesman is the go-between and talks with client, builder, and architect. Obviously such an arrangement deprives the client of the best type of architectural service, and deprives the architect of a proper fee.

One Way Out!

The dictionary I have here (Webster's 1920) describe an architect as follows: "Architect—chief artificer (master builder) one who plans and oversees the construction of buildings, designer, and MAKER." There, I think, is the answer to the $64 question. I will admit that it is practically impossible for the architect to subsist today on residential work alone. This is due to the fact that now too many young local architects have been tempted to work for the builder, either at nominal fees which have reduced the quality of the work, or on a salary. Others, in the emergency, have had to take government jobs, and this before the war. Such practice in New Jersey, at least, is not confined to the small house, but houses costing up to $100,000—with the majority at perhaps $20,000.

If we want to bring the benefit of the architect to these millions of new homes which will cover our landscape, we must change our method of practice and assume the responsibilities the client expects, as our competitors do.

Is there anything more unprofessional in that, than for an architect to work for the builder under existing conditions, in competition with the architect trying to conduct a private practice? I do not think so. I don't know why I get so wrought up about it. I saw the writing on the wall some years ago and bought some land to build houses on for sale. It has been quite satisfactory, and very simple.

The Way It Works

The work is done in the name of a company; I own the company and there is no chiseling of fees. Strangely enough it has not hurt my private practice; if anything, has been a help. On our architectural jobs, the development company has nothing to do with the work, all is executed by outside contractors who know we will not bid on the work or have any part in it. From the practical side, we are in close touch with costs, seldom underestimate a job from sketches, and if necessary we make a quantity survey of the materials and price it, consequently our estimate of cost is usually between the high and low bids.

Another thing—from the practical standpoint, I do not have to take on and lay off draftsmen; in slow periods we design houses to be built on certain plots, particularly the problem lots, of which there are always some, and these sketches are used to sell that particular plot. The greatest trouble we have is explaining why we will not build on a client's own land. So far we have confined the building operations to our own land, selling a package job, complete with financing if required. One good reason for that is that we retain the title until we receive the last payment. Also the key. Just what we will do in the future I do not know, it will depend upon conditions and how many builders or building companies enter the plans-to-completion way of doing business, with the aid of a hired architect in the background. We will have to admit, whether we like it or not, that it has its merits, from the client's point of view, as he deals with a single responsible administrator of the project.

Speed is gained and the waste of hundreds of hours of estimating by numerous contractors and subcontractors is eliminated. Overhead is reduced and this eventually can be passed on to the owner, as competition demands. As we all know, the general-contractor-competitive-bidding-system is not without its evils, and is the principal reason for the necessity for supervision. "Chiseling of subs" is not unknown. I have found most subcontractors, the men who actually do the building, to be honest, able, and to take a pride in their work, particularly if they are not put in unfair competition. Of course, there are all kinds, but after being in business for a few years it is not hard to sift them out and classify them.

Accepting Responsibility For Building

We have a wonderful opportunity ahead, that of bringing the benefit of architectural skill to millions of small buildings. Competent architectural services should make the community a better place in which to live. If we will change our methods and accept responsibility we can use this mass of small work as a clinic for the architect to get in closer touch with small building problems, costs and construction methods. To do otherwise will just create more designers, paper architects, who have no control over the execution of their creations, a condition which I believe would prove disasterous if allowed to develop. The architect who will assume full responsibility for the design and execution of the house will gain the respect of the client and, what's more, a fee proportionate to his service.

Organization For Building

Just one other thought I would like to mention. Even house building has become quite complex and is therefore a job for an organization. The full-contract method, plans-and-construction, makes an organization possible; a number of subcontractors actually do the work, their bids are totalled and profit added.

By standardization of specifications and details, costs can be reduced, because of quantity purchasing. The owner gets more for the money than the architect can give him under the old bidding method, and the subcontractors as well as the architect still make a profit—a good profit.

The strange part of the whole present "builder" set-up is that the so-called builder is often a man without building experience or technical training in construction. He is often a businessman and salesman. He gains the assistance of an architect for plans, then gets the bids and sells the job. I know one builder who said he made $10,000 on a certain house. I also know he paid the architect $400 for the plans. Another builder, now retired, told me he made $20,000 on a house one of the men in my office designed for him, at a fee not mentioned.

The statement that a house will not stand a 10 or 15 per cent fee is ridiculous. It simply means the owners do not care how much they pay if they get what they want, where they want it, and a price they can afford and know before they become too involved. It is up to the architect to be realistic and to serve his client as he wants to be served —by a single responsible organization.

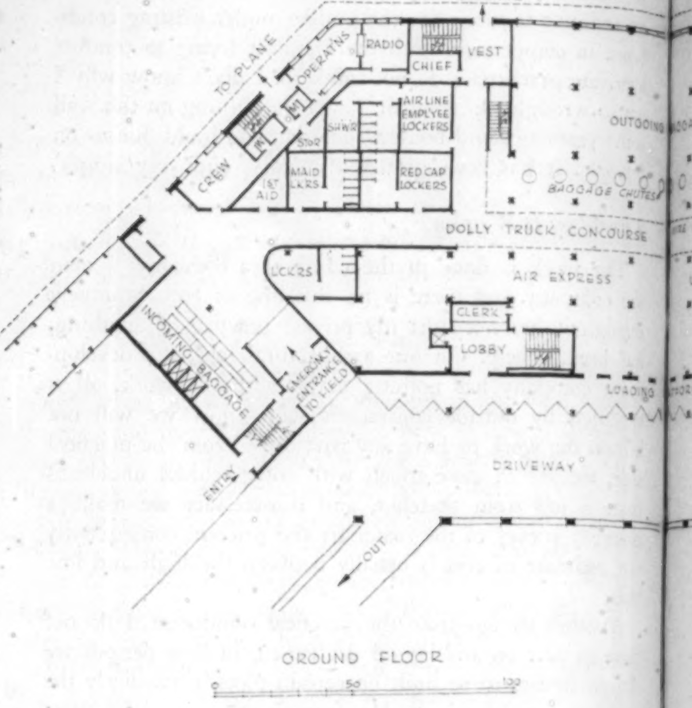
A portion of a prewar suburban development at Short Hills, N. J., by Kenneth W. Dalzell, A. I. A., Architect

Rodney McCay Morgan

SAN ANTONIO MUNICIPAL PORT

Atlee B. and Robert M. Ayres, Architects

Revised plans, to supersede those published in Architectural Record for April

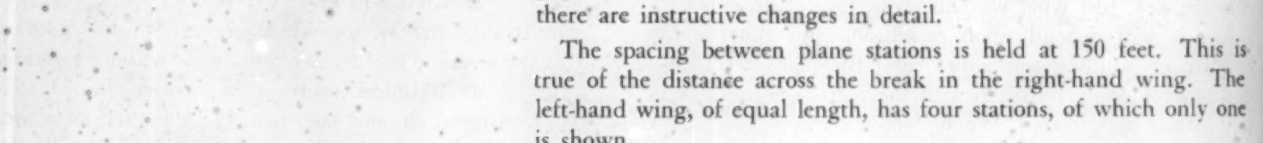

TO PLANE
TO PLANE
OPERATNS
RADIO
CHIEF
VEST
CREW
SHWR
STOR
AIR LINE EMPL'YEE LOCKERS
1ST AID
MAID LKRS
RED CAP LOCKERS
OUTGOING
BAGGAGE CHUTES
DOLLY TRUCK CONCOURSE
LCKRS
AIR EXPRESS
CLERK
LOBBY
INCOMING BAGGAGE
EMERGENCY ENTRANCE TO FIELD
LOADING
DRIVEWAY
ENTRY
OUT
0
50
100

GROUND FLOOR

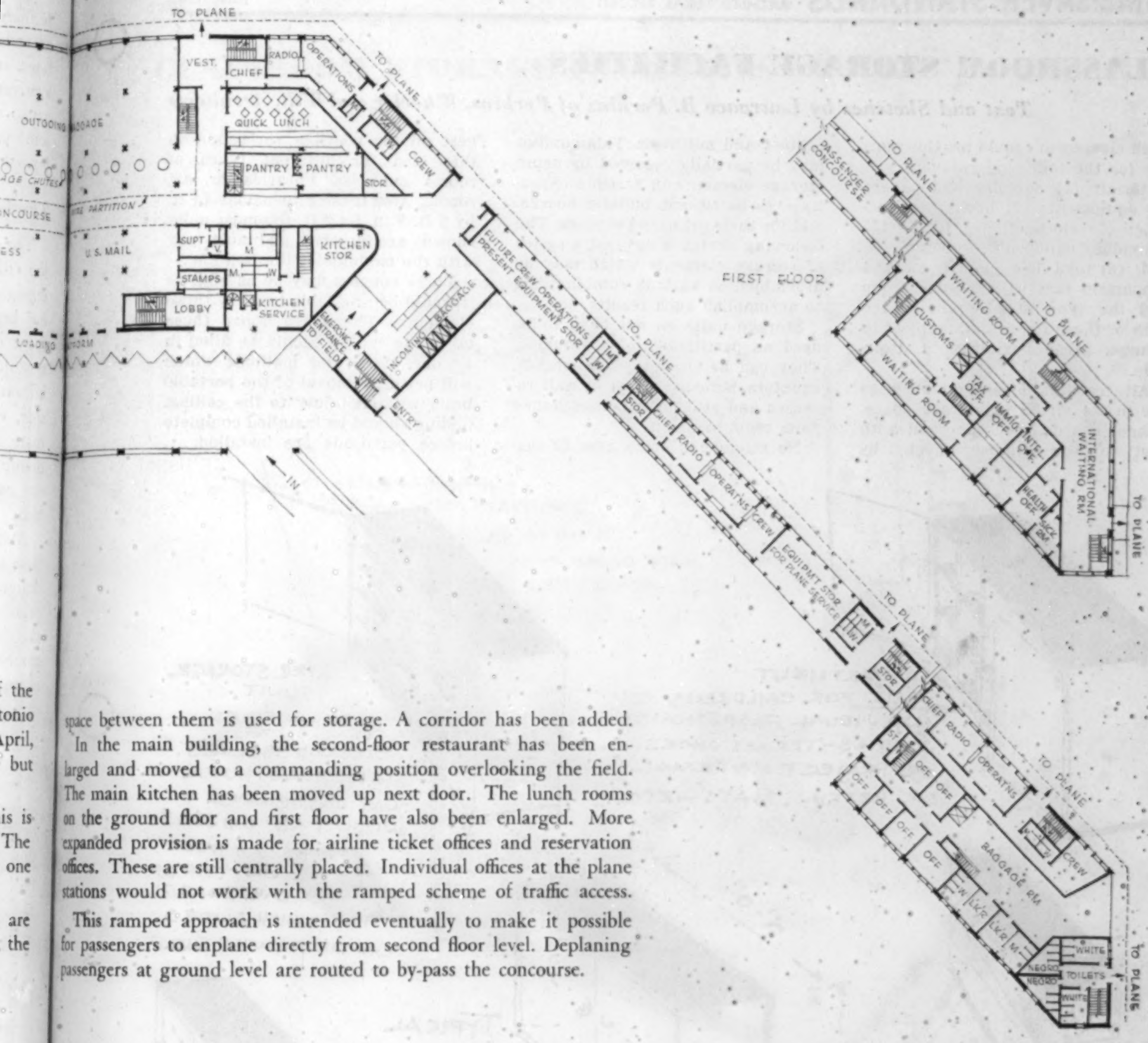
THE publication of these revised plans within two months of the originals attests the rapidity of airport progress. The San Antonio Airport was presented in the RECORD's airport number in April, pages 86 and 87. In the revision, the parti remains the same but there are instructive changes in detail.

The spacing between plane stations is held at 150 feet. This is true of the distance across the break in the right-hand wing. The left-hand wing, of equal length, has four stations, of which only one is shown.

At each station, terminal facilities of the individual airlines are arranged with a view to possible later expansion; for the present the

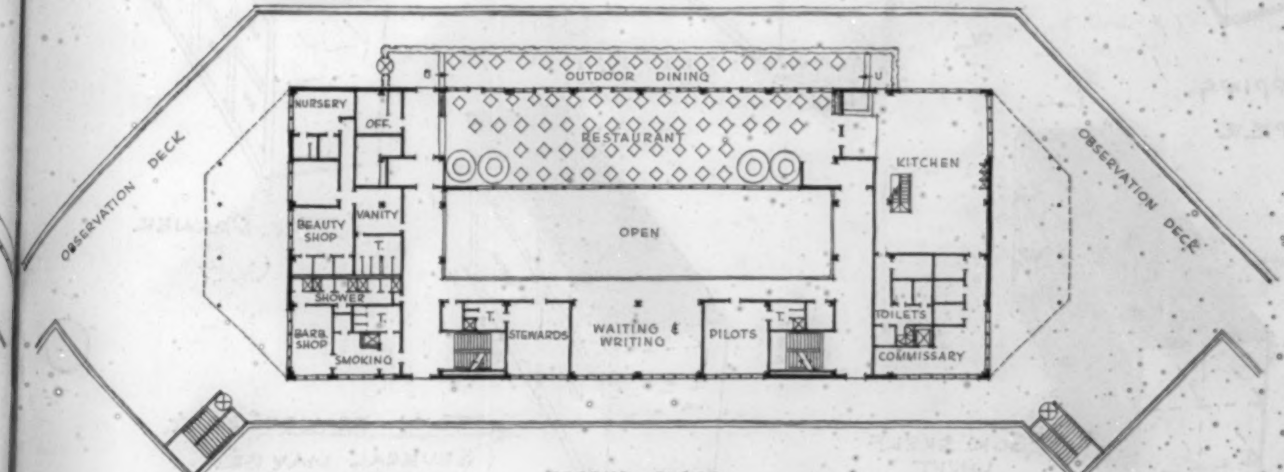

TO PLANE
TO PLANE
TO PLANE
PASSENGER CONCOURSE
CONCESSIONS
AIR LINE RESERVATION OFFICES
RESTAURANT
SERVING PANTRY
TO PLANE
PASSENGER CONCOURSE
BAGGAGE CHUTES
COUNTER
WAITING ROOM
TO PLANE
TO PLANE
W
M
BAGGAGE CHECK RM
FROM PLANE
UNASSIGNED
CAB OFF
TELEG
TICKET 4 AIR LINES (CONCESSIONS
FUTURE OFFICES AT PRESENT)
TELEG
DISPL
SHINE
W.
CAB OFF
M
FROM PLANE
BAGGAGE CHECK RM
SIDEWALK
DRIVEWAY
RAMP DOWN
RAMP UP

FIRST FLOOR


TO PLANE
VEST.
CHIEF
RADIO
OPERATIONS
QUICK LUNCH
PANTRY
PANTRY
STOR
CREW
OUTGOING BAGGAGE
BAGGAGE CHUTES
BAGGAGE PARTITION
CONCOURSE
U.S. MAIL
SUPT
M
M.
W
KITCHEN STOR
STAMPS
LOBBY
KITCHEN SERVICE
EMERGENCY ENTRANCE TO FIELD
INCOMING BAGGAGE
ENTRY
LOADING
IN
FUTURE CREW OPERATIONS
PRESENT EQUIPMENT STOR
TO PLANE
STOR
CHIEF
RADIO
OPERATNS
OPERATNS
CREW
EQUIPMT STOR FOR PLANE SERVICE
FIRST FLOOR
PASSENGER CONCOURSE
TO PLANE
WAITING ROOM
CUSTOMS
WAITING ROOM
TAX OFF.
IMMIG. OFF.
INTEL OFF.
HEALTH OFF.
INTERNATIONAL WAITING RM
TO PLANE
TO PLANE
STOR
CHIEF
RADIO
OPERATNS
OFF
OFF
OFF
OFF
OFF
OFF
BAGGAGE RM
CREW
W
LKR
LKR
M
WHITE
NEGRO
TOILETS
NEGRO
WHITE
TO PLANE

space between them is used for storage. A corridor has been added. In the main building, the second-floor restaurant has been enlarged and moved to a commanding position overlooking the field. The main kitchen has been moved up next door. The lunch rooms on the ground floor and first floor have also been enlarged. More expanded provision is made for airline ticket offices and reservation offices. These are still centrally placed. Individual offices at the plane stations would not work with the ramped scheme of traffic access.

This ramped approach is intended eventually to make it possible for passengers to enplane directly from second floor level. Deplaning passengers at ground level are routed to by-pass the concourse.


OUTDOOR DINING
NURSERY
OFF.
RESTAURANT
KITCHEN
OBSERVATION DECK
OBSERVATION DECK
BEAUTY SHOP
VANITY
T.
OPEN
SHOWER
T.
BARB. SHOP
SMOKING
T.
STEWARDS
WAITING & WRITING
PILOTS
T.
TOILETS
COMMISSARY
U

SECOND FLOOR

CLASSROOM STORAGE FACILITIES

Text and Sketches by Lawrence B. Perkins of Perkins, Wheeler and Will, Architects

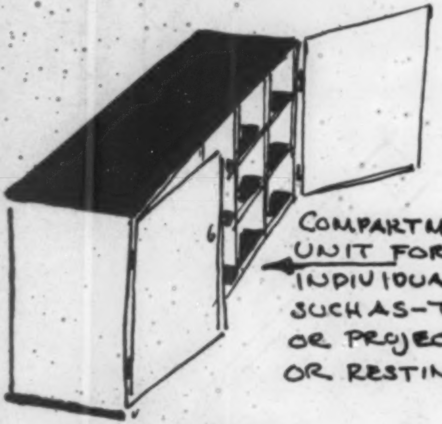
Each classroom should provide storage for the following categories of material: (1) supplies and paper; (2) equipment; (3) books; (4) records; (5) clothing; (6) tools; (7) individual children's project material; (8) toys. The quantity and the proportion vary with the age group and the type of program. Since both of these factors are subject to change, great flexibility is desirable.

All teachers stress quantity as the prime virtue in storage space. School boards are concerned with cost which is seriously affected by cabinet and millwork. This conflict may be partially resolved by using storage elements in a triple capacity — as partitions, bulletin boards, and for their primary purposes. The following sketches suggest a series of storage elements which may be assembled in various combinations to accomplish such results.

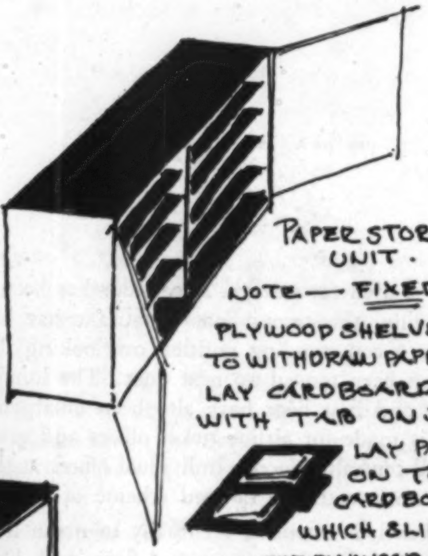
Storage units do not have to be used as partitions to be valuable. They can be assembled as islands, counters, screens, or set in wall recesses and still permit interchange from room to room.

No attempt is made here to suggest all the possible variations on this idea for different types of rooms such as libraries or art rooms. Also these dimensions (4 ft. by 2 ft. 8 in. by 2 ft. for most units shown) are tentative and must vary with the modulus of the building.

Three courses may be as high as it would be profitable to carry these elements. The space above these up to the ceiling should be filled in by one of several methods which will permit removal of the portable units without injury to the ceiling. Ceiling should be installed complete before partitions are installed.

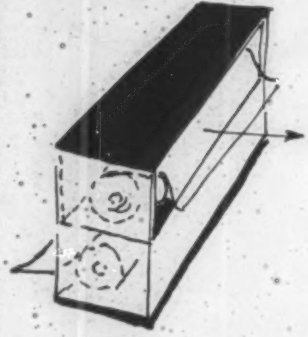


COMPARTMENT UNIT FOR CHILDRENS INDIVIDUAL POSESSIONS SUCH AS—TENNIS SHOES OR PROJECT MATERIAL OR RESTING MATS—ETC.

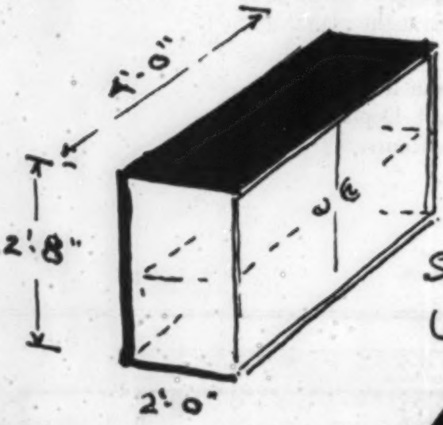


PAPER STORAGE UNIT.

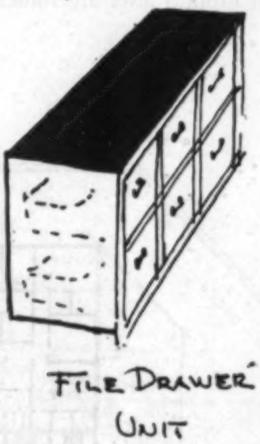
NOTE — FIXED PLYWOOD SHELVES. TO WITHDRAW PAPER LAY CARDBOARD WITH TAB ON SHELF. LAY PAPER ON TOP OF CARDBOARD WHICH SLIDES ON THE PLYWOOD SHELF.



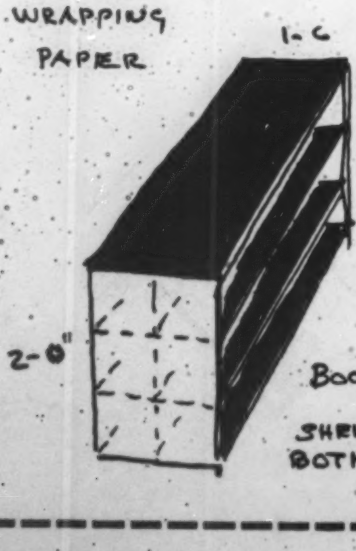
WRAPPING PAPER



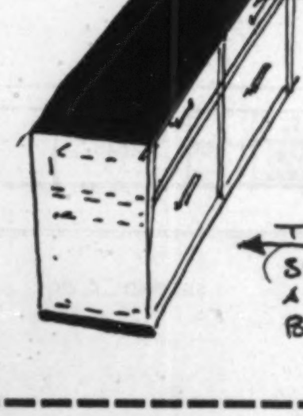
TYPICAL SUPPLY UNIT.



FILE DRAWER UNIT

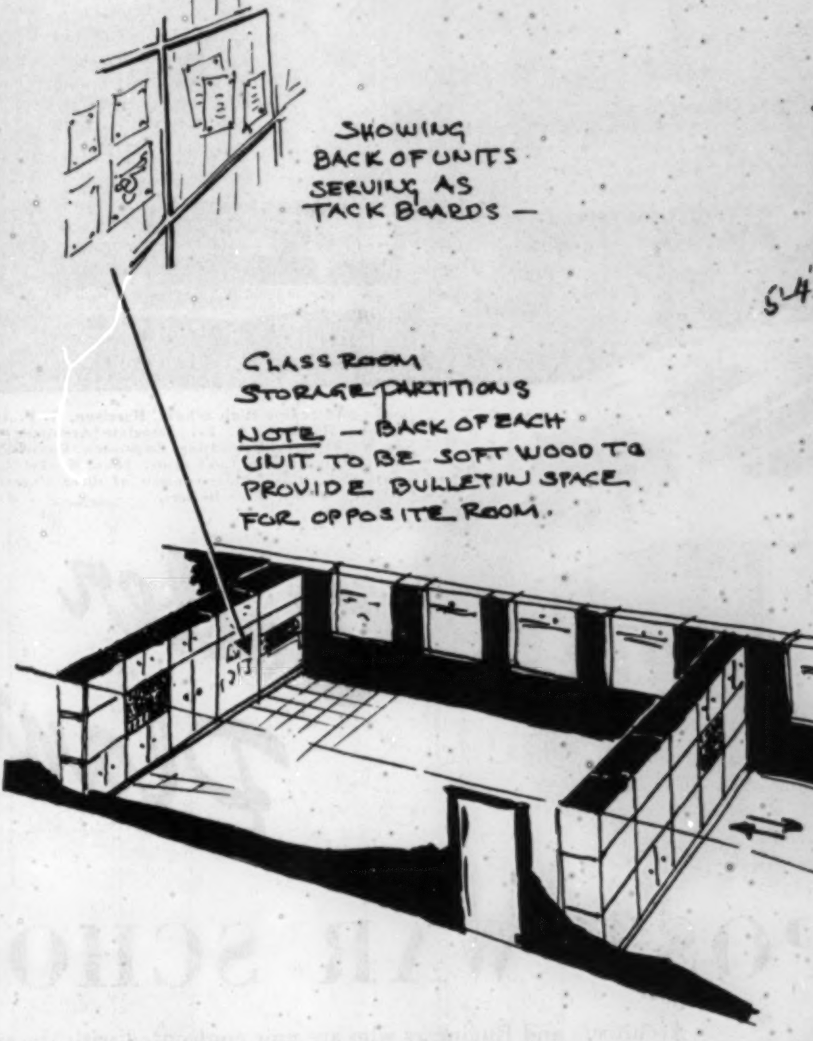


BOOK SHELF UNIT
SHELVES FACING BOTH ROOMS



TOOL DRAWER UNIT
SEVERAL MAY BE ASSEMBLED INTO WORK BENCH ISLAND —

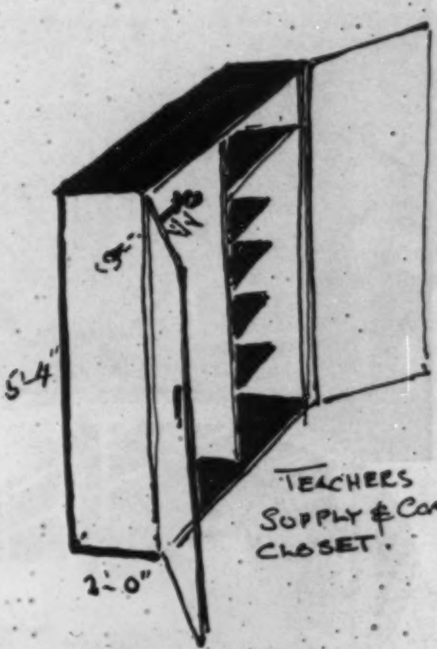
CLASSROOM STORAGE FACILITIES *(Continued)*



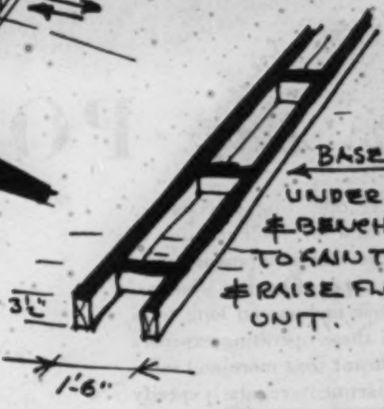
SHOWING BACK OF UNITS SERVING AS TACK BOARDS —

CLASSROOM STORAGE PARTITIONS

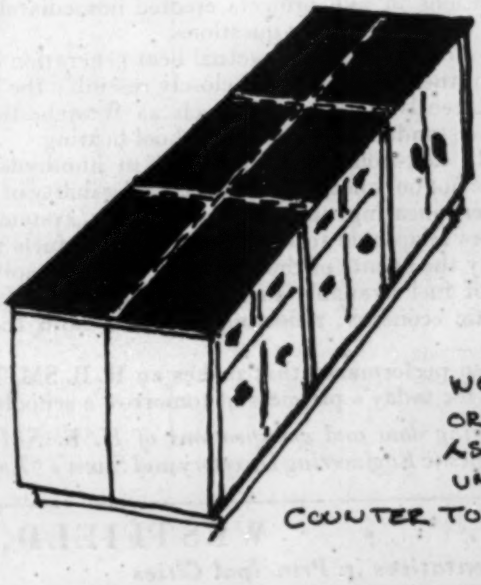
NOTE — BACK OF EACH UNIT TO BE SOFT WOOD TO PROVIDE BULLETIN SPACE FOR OPPOSITE ROOM.



TEACHERS SUPPLY & COAT CLOSET.

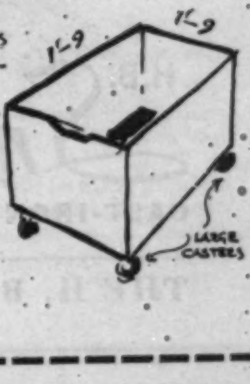


BASE UNDER PARTITIONS & BENCH ASSEMBLIES TO GAIN TOE SPACE: & RAISE FLOOR OF UNIT.



WORK BENCH OR COUNTER ASSEMBLY OF UNITS

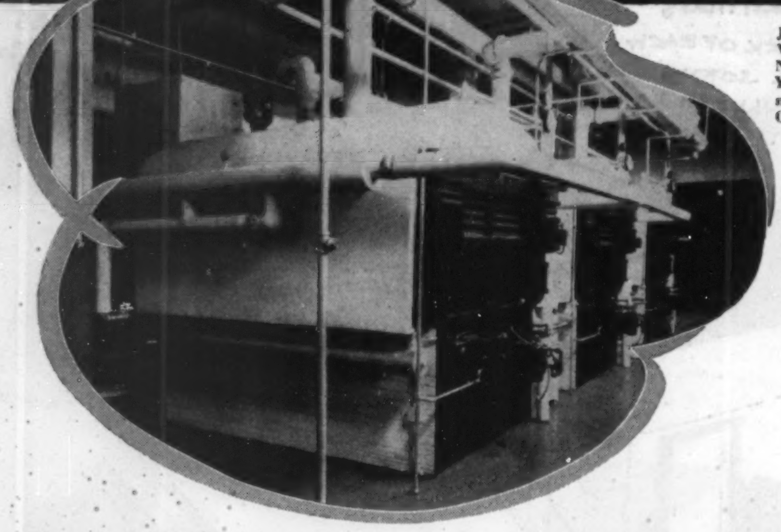
COUNTER TOP MAY BE ADDED.



TOY DRAWER —
(NOT PART OF UNIT SYSTEM)

FOR STORAGE OF BLOCKS & BULKY TOYS. CAN BE PULLED ALL OVER ROOM AND GARAGED BELOW A DEEP WINDOW SILL.

LAKEWOOD, OHIO
ATLANTIC CITY, N. J.
SCRANTON, PA.
BOSTON, MASS.
BURLINGTON, VT.
CLEVELAND, OHIO
SCHENECTADY, N. Y.
SPRINGFIELD, MASS.
RED BANK, N. J.
WATERBURY, CONN.
BRIDGEPORT, CONN.
PHILADELPHIA, PA.
YONKERS, N. Y.



Junior and Senior High School, Harrison, N. Y. Architect, Robe Vignola, Harrison, N. Y.; Associate Architect, H. H. Knapp New York City; Consulting Engineers, Daniel & Wallen, N York City; Heating Contractor, John Winkel Co. Inc., Larchmont, N. Y. Boiler Plant consists of three 20-section #60 Smi Cast Iron Header Type Boilers.

Boiler Plant... *for the* POST WAR SCHOOL

City school operating officials are obviously in a favorable position to compare fuel and maintenance costs of various types of heating systems. Basing their findings on long term studies of these operating expenses it is significant that more and more school departments regularly specify H. B. SMITH boilers as standard equipment for their buildings.

Architects and Engineers who are now confronted with the specificatio of heating systems for public schools to be built post war would do we to study installations in like projects erected immediately pre-war t find the answers to many of their questions.

It is our prediction that as far as actual heat generation is concerned the boiler plant of the 194? school will closely resemble the best installations of 1941. Recently built schools such as Westchester's Harriso High have set the standard for post war school heating.

H. B. SMITH cast-iron boilers installed in hundreds of recentl built schools have not only been capable of that flexibility of performanc needed by modern heating and air conditioning systems, but hav proven themselves adaptable to the use of different fuels and method of firing forced by the events of the last three years. Despite reduction in the amount of fuel available these SMITH boilers have operate with characteristic economy, reflecting credit on both their specifier and installers.

It is this proven performance that makes an H. B. SMITH specification the best bet for today's planners of tomorrow's schools.

Complete engineering data and specifications of H. B. SMITH Boiler are filed in the Domestic Engineering Directory and Sweet's "Engineering."

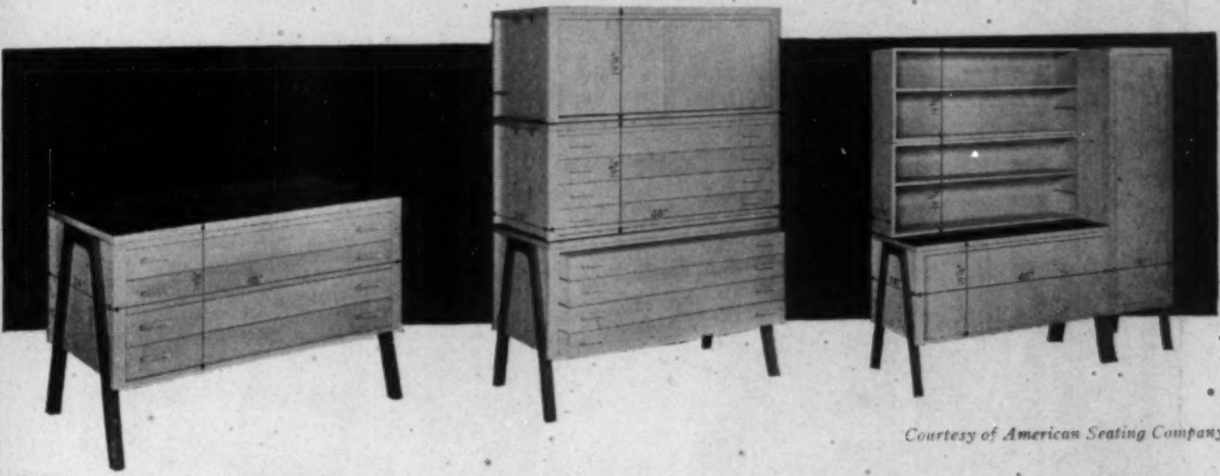
H. B. Smith
CAST-IRON BOILERS

THE H. B. SMITH COMPANY, INC. • WESTFIELD, MAS

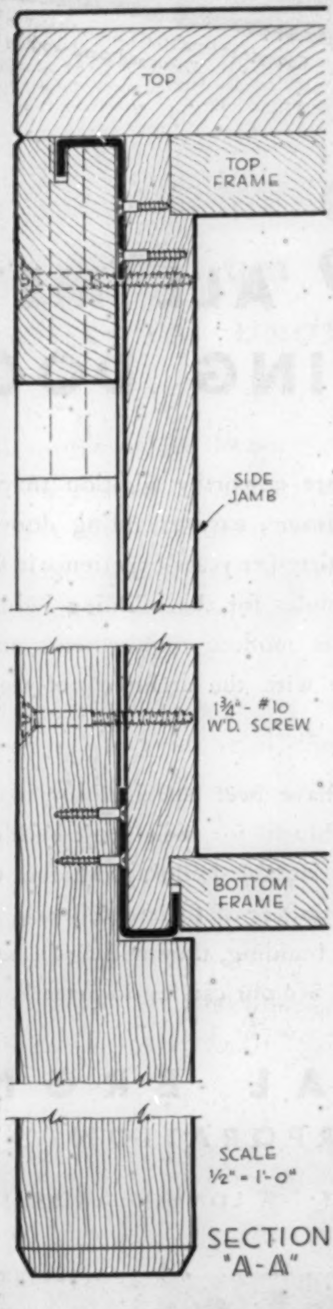
Branch Offices and Sales Representatives in Principal Cities

SCHOOL STORAGE UNITS

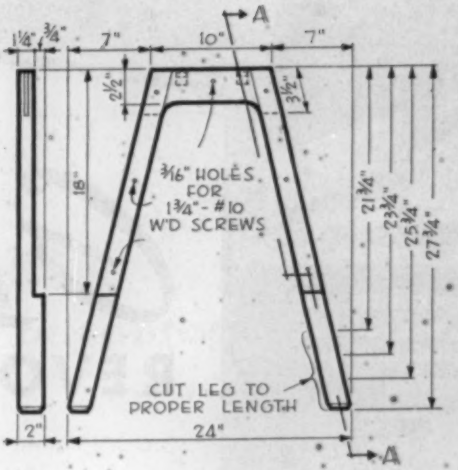
From designs by Ernest J. Kump, Architect

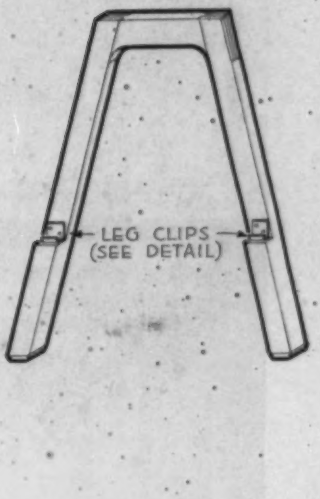


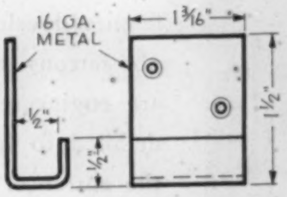
Courtesy of American Seating Company


TOP
TOP FRAME
SIDE JAMB
1¾" - #10 W'D. SCREW
BOTTOM FRAME
SCALE ½" = 1'-0"

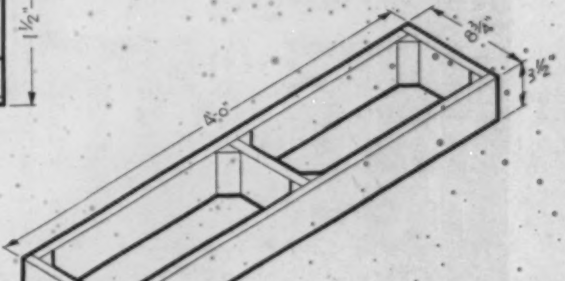
SECTION "A-A"


A
1¼"
¾"
7"
10"
7"
2½"
3½"
18"
3/16" HOLES FOR 1¾" - #10 W'D SCREWS
21¾"
23¾"
25¾"
27¾"
CUT LEG TO PROPER LENGTH
2"
24"
A


LEG CLIPS (SEE DETAIL)


16 GA. METAL
1 3/16"
1½"
½"
½"

DETAIL LEG CLIP



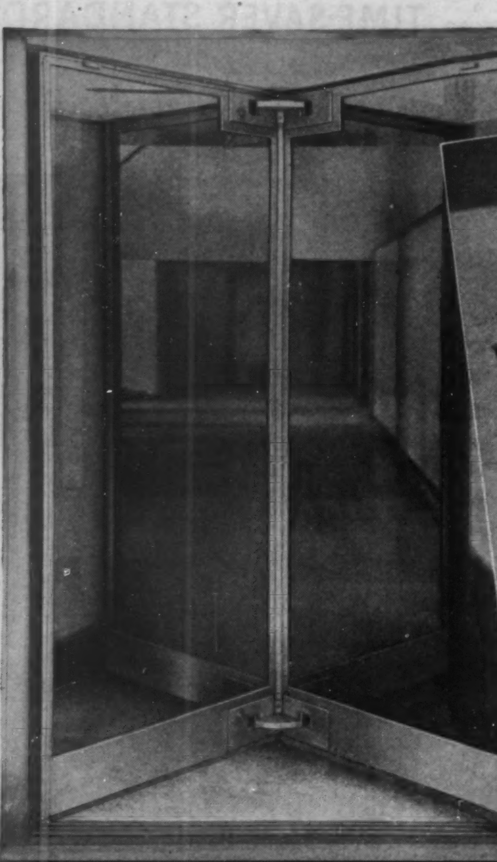
BOX TYPE BASE

Basic cabinet is 4 ft. long, 19¼ in. high and 24 in. deep

Designed by Ernest J. Kump for the Alameda Elementary School, this storage furniture was intended to secure flexibility in classroom use.

Detachable legs bring the lowest units up to a minimal stooping height. As an alternative, for those who feel that easy cleaning is more important, there is shown a box base.

A bookcase can be hung from the wall with coat hook strip under. Bookcase then serves as storage space for hats, books, and lunch pails.

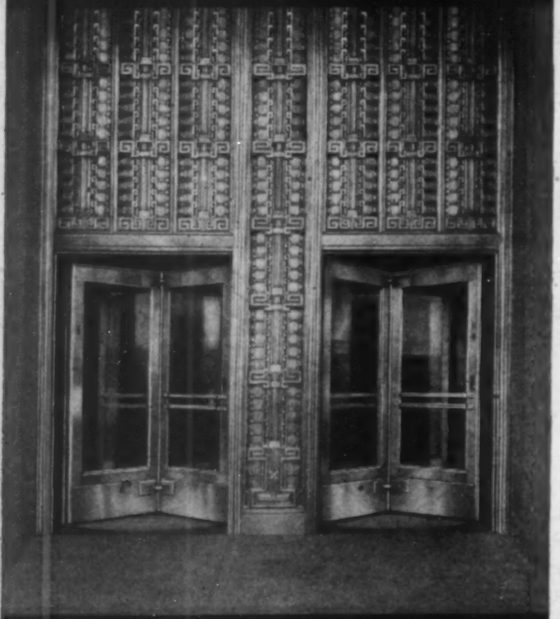


GB REVOLVING DOORS AT ROCKEFELLER CENTER

More than 60 GB revolving doors have been installed to date in the beautiful buildings of Rockefeller Center.

Stouffer's
Pershing Square

Entrance to STOUFFER'S RESTAURANT in New York City. Doors and metal work by General Bronze.



U. S. POST OFFICE AT PHILADELPHIA, PA.

Revolving doors and metal work by General Bronze.

GB ALL METAL REVOLVING DOORS

GB revolving doors are a worthy addition to your finest buildings. These handsome, easy-operating doors embody features developed in thirty-five years' experience in fabricating non-ferrous metal products for the building industry. They are engineered to meet modern requirements and can be detailed to harmonize with the architectural treatment of the entrance.

GB revolving doors have been specified by many of the country's foremost architects for their finest buildings. Hundreds of installations in notable buildings all over the United States are constant reminders of their excellence. As soon as metals are released for building, they will again be available. Plan now to use them. See our catalog in Sweet's.

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34-15 TENTH STREET LONG ISLAND CITY 1, N. Y.

ARMY E NAVY

SIX CONSECUTIVE ARMY-NAVY "E" AWARDS

Rear view, showing anchoring lugs cast integrally with the spandrel

One of thousands of aluminum spandrels cast by Alcoa and now on the Rockefeller Center Buildings, New York City

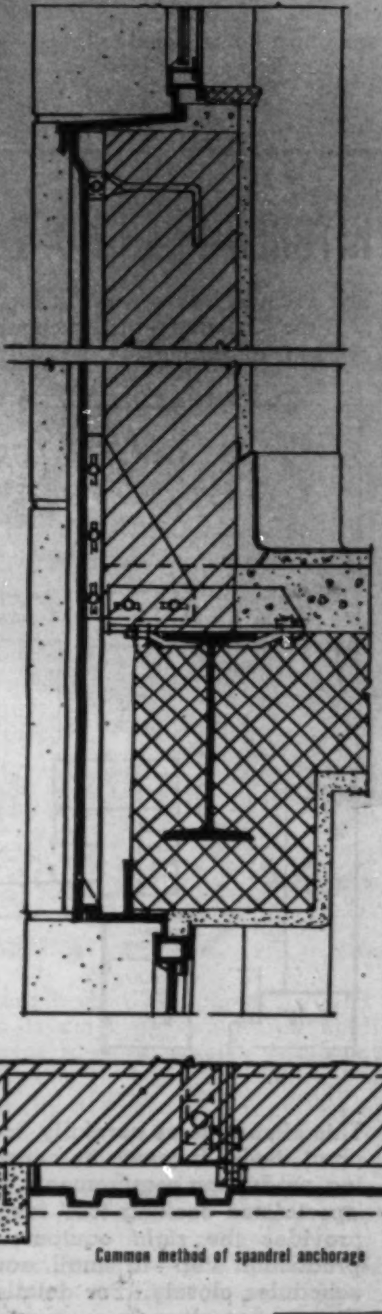
Let's look behind Alcoa Aluminum Spandrels and discover another advantage

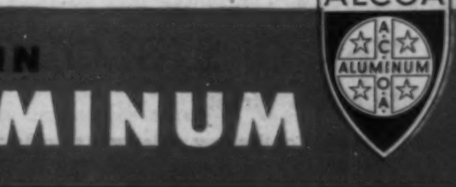
Obvious reasons for the popularity of aluminum spandrels are their richness, the unusual and interesting effects possible, and the durability of aluminum.

But let's look behind and discover other reasons: Anchoring ribs cast integrally with Alcoa Aluminum spandrels simplify both the designer's and erector's job. Slotted holes in the anchors allow adjustment for the normal variations in construction dimensions and give a truer fit all over. Such an anchorage permits placing the spandrel after exterior pilasters or jambs have been completed.

The lighter weight of a complete aluminum spandrel makes handling easier, erection faster. It cuts installation costs

For details on aluminum spandrels, write Aluminum Company of America, 2167 Gulf Bldg., Pittsburgh 19, Pa.





Common method of spandrel anchorage

ALCOA FIRST IN ALUMINUM

REQUIRED READING

CITY DEVELOPMENT

Studies in Disintegration and Renewal. By Lewis Mumford. New York 17 (383 Madison Ave.), Harcourt, Brace & Co., 1945. 5¼ by 8 in. 248 pp. $2.00.

In 1922 Lewis Mumford was a young man of 26, scarcely old enough, one might think, to write a critique on a subject of such scope as "The City." Yet write one he did, and one so inherently sound that he has dared to include it 23 years later in this book of essays on city development. Much more general in character than the later essays, and less adroit, less finished, it is nonetheless a shrewd exposé of the city, and a perfect background for what follows.

All the essays in this volume have been published before, but the last two —"The Social Foundations of Postwar Building" and "The Plan of London" —have not appeared before in this country. These, therefore, with the detailed and far-seeing "Report on Honolulu," will probably prove of most interest to the reader already familiar with Mr. Mumford's penetrating analyses of the present-day city.

"The planning of a life-centered environment for the family is the primary task in urban rehabilitation," Mr. Mumford states bluntly. "The prewar migration to suburban cottages, to weekend huts, to rural estates, was a recognition of the fact that our typical urban environments no longer offer the possibility of a significant or healthy life," he says. And good planning after the war, he sums up, "will rest on the solid foundations of the family and the region; it will emphasize the biological and the social needs of the people, and it will treat industrial and financial needs as subordinate ones."

This theme runs through each of the essays. The city has over-expanded, Mr. Mumford says again and again; it has "just growed" like Topsy, with no thought of rational development. Industrial and residential, business and educational, cultural and recreational centers have been jumbled together in utter confusion. Unlike José Luis Sert, Mr. Mumford does not ask can our cities survive; he seems to think that they can. But he makes it pretty clear that they are headed toward disaster if they do not quickly sort themselves out and make a fresh start.

Many a city planner, of course, may find this book rather lacking in concrete suggestion. For, as always, Mr. Mumford is here concerned chiefly with the essential character of a city—with what has made it what it is, and with what it could and should become.

ARCHITECTS' VISUAL EQUIPMENT HANDBOOK

Chicago 45 (7100 McCormick Rd.). Bell & Howell Co., 1945. 6 by 9 in. 18 pp. illus.

With visual education becoming ever more of an influence in school and college circles, and with a large school building program ahead for the postwar period, this handbook is both timely and useful.

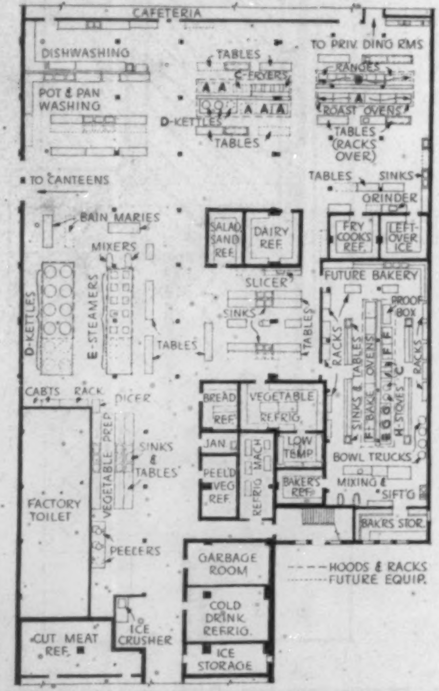
As the title indicates, this is a bulletin written solely to help architects plan the most effective and convenient use of visual educational equipment. While concerned primarily with the use of such equipment in schools, its advice is equally applicable to the planning of theaters, auditoria, recreational centers and the like.

Subjects covered are: seating arrangement; screen size and type; location of loud speaker, projector, wall sockets and cables; electrical specifications; illumination; acoustics; auditorium specifications; service and storage rooms. Charts and diagrams are included for greater clarity.

(Continued on page 122)

KITCHEN PLAN NO. 24: Twenty-fourth of a series of successful mass-feeding operations.

The kitchen below—in the huge Higgins Aircraft, Inc., plant at New Orleans—was designed for flexibility and speedy, efficient operation.


CAFETERIA
DISHWASHING
POT & PAN WASHING
TABLES
C-FRYERS
D-KETTLES
TABLES
TO PRIV. DINÖ RMS
RANGES
ROAST OVENS
TABLES (RACKS OVER)
TO CANTEENS
TABLES
SINKS
GRINDER
BAIN MARIES
MIXERS
D-KETTLES
E-STEAMERS
TABLES
SALAD SAND REF.
DAIRY REF.
SLICER
SINKS
TABLES
FRY COOKS REF.
LEFT-OVER ICE
FUTURE BAKERY
PROOF BOX
RACKS
SINKS & TABLES
F-BAKE OVENS
H-STOVES
RACKS
CABTS
RACK
DICER
VEGETABLE PREP
SINKS & TABLES
BREAD REF.
VEGETABLE REFRIG.
JAN.
PEEL'D VEG REF.
REFRIG MACH
LOW TEMP
BAKER'S REF.
BOWL TRUCKS
MIXING & SIFT'G
BAK'RS STOR.
FACTORY TOILET
PEELERS
GARBAGE ROOM
COLD DRINK REFRIG.
ICE STORAGE
CUT MEAT REF.
ICE CRUSHER
----HOODS & RACKS
........FUTURE EQUIP.

KEEP FOR HANDY REFERENCE!

COOKING EQUIPMENT USED:

Kitchen (Presently installed)
- (a) 7 No. 952 BLODGETT GAS-FIRED ROAST OVENS
- (b) 7 solid-top ranges
- (c) 4 deep-fat fryers
- (d) 10 stock kettles
- (e) 10 vegetable steamers

Bakery
- (e) 1 steamer
- (f) 11 No. 982 BLODGETT GAS-FIRED BAKE OVENS
- (g) 2 stock kettles
- (h) 2 confectioner's stoves

(Dotted lines indicate equipment to be installed in the future.)

Designed by H. E. Sloman, of Albert Kahn Associated Architects and Engineers; J. Earle Stevens, Consultant.

TECHNICAL DATA
IDEAS – ADVICE
INFORMATION
CONSULT YOUR FOOD SERVICE EQUIPMENT DEALER
HE IS AN EXPERT ADVISOR AND COUNSEL

This kitchen is as carefully 'tooled' as the plant itself. It meets its constantly varying production requirements, because the 'specialized cooking tool' idea here used provides the *right* equipment for each production step—in small, easily controlled units that follow schedules closely. For details and specifications of Blodgett Ovens, consult your equipment house or write

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AVAILABLE THROUGH 117 WESTINGHOUSE ELECTRIC SUPPLY COMPANY OFFICES AND INDEPENDENT DISTRIBUTORS

REQUIRED READING

(Continued from page 120)

HOW TO BE YOUR OWN DECORATOR

By Helen Koues. New York (221 Fourth Ave.), Tudor Publishing Co., 1945. 8½ by 11 in. 128 pp. illus. $1.00.

Here is an attractive, honest and sensible book on home decorating, profusely illustrated and full of ideas. Starting out with five basic principles of decorating—type, background, color, scale and individuality—it delves into almost every phase of home decorating from how to know and use period furniture to how to use space for today's living. A particularly helpful feature is the list of "reminders" which sums up almost every chapter.

This is a book that goes well with the best in architectural postwar planning. For the emphasis throughout is on such acknowledged desiderata as good space utilization, unit furniture, plenty of light and air, outdoor living. There is even a separate chapter on "built-ins."

GEORGES ROUAULT: PAINTINGS AND PRINTS

By James Throll Soby. New York 19 (11 W. 53rd St.), The Museum of Modern Art, 1945. 7½ by 10 in. 132 pp. 128 plates. $3.00.

A presentation of Georges Rouault through a well-written critique and a number of excellent reproductions of his work. Mr. Soby's study traces Rouault's development from childhood to the present; Carl O. Schniewind adds a brief commentary on the technique of the artist's prints; and the artist himself supplies a series of explanatory and biographical notes. The volume was prepared for the recent exhibition of Rouault's paintings at the Museum of Modern Art, New York.

CONVERSION FACTORS AND TABLES

By O. T. Zimmerman and Irvin Lavine. Dover, N. H., Industrial Research Service, 1944. 4¼ by 6¼ in. 262 pp.

In their preface to this small volume the authors explain that the book was prepared as a time-saver for the scientific or technical worker. "It was designed," they say, "to provide, in one convenient volume, an accurate source of fundamental relationships as well as several thousand useful constants for the conversion of units." Handily arranged, well indexed, and blessed with a list of abbrevations and a section on definitions and fundamental values.

NEW EDITIONS

INSPECTED EQUIPMENT

List of Inspected Fire Protection Equipment and Materials. Chicago 11 (207 E. Ohio St.), Underwriters' Laboratories, Inc., 1945. 6 by 9 in. 176 pp.

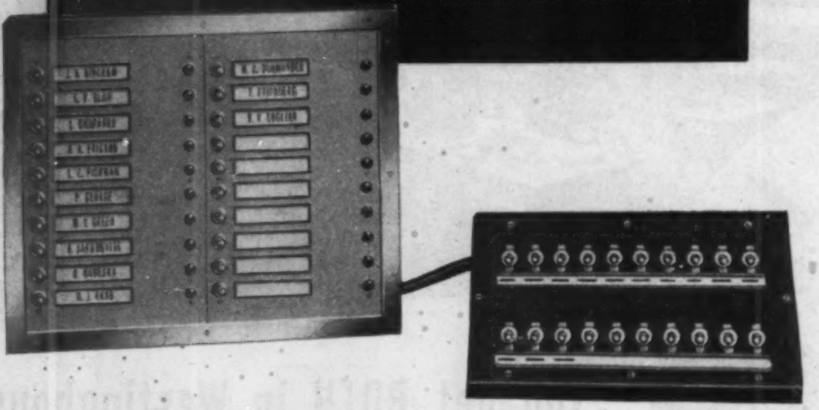
The latest semiannual revision of the Underwriters' Laboratories listing of fire protection equipment and materials. Divided as usual into sections on various types—doors and shutters, extinguishers, building materials, roof covering materials, and so on.

BUILDING INSULATION

By Paul D. Close. Chicago 37 (Drexel Ave. at 58th St.), American Technical Society, 1945. 2nd. ed. 5½ by 8¼ in. 326 pp.

This useful and readable text book on insulation principles and practices has now graduated into a second edition, and presumably has been brought up to date in every respect. One of the most helpful sections of the book unquestionably remains the chapter dealing with thermal building insulations, and listing somewhat over 200 commercial insulating materials under their trade names, complete with description and manufacturer's name and address. The whole book is a workmanlike job, excellent for reference and study alike.

Save precious "staff hours" with a CANNON REGISTER



Here's the finishing touch for a hospital or business office planned for efficiency—the Cannon In-and-Out Register. Keeps tab on doctors, salesmen, and important staff members—indicates their presence or absence at a glance—gets messages to them promptly. Controlled from any entrance or remote and separated buildings, it is an easy matter for the busy executive to keep the telephone operator or main desk informed of his whereabouts.

Cannon In-and-Out Registers are being used to better organize personnel in busy offices, factories and public institutions. Write for installation and operation details of various models, types and sizes.

Cannon Signal Systems include a complete line of . . . Calling Stations, Annunciators; Paging Systems and In-and-Out Registers for Hospitals, Department Stores,. etc. Cannon also manufactures Experimental Switchboards, Sectional Terminals, Multi-contact Electrical Plugs and Receptacles.

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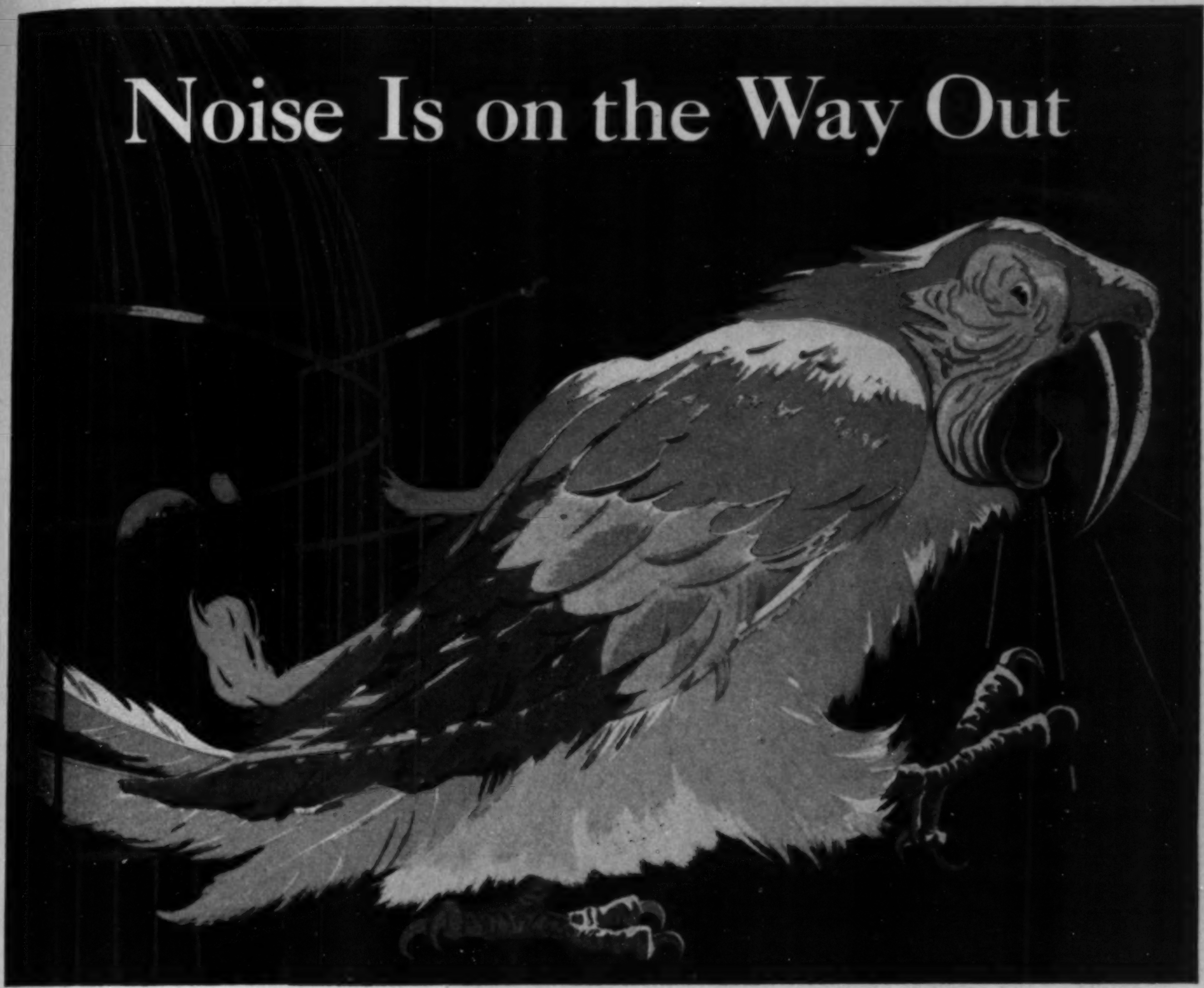
CANNON ELECTRIC DEVELOPMENT COMPANY, LOS ANGELES 31, CALIF.
MANUFACTURING SIGNAL ENGINEERS


Noise Is on the Way Out

with SABINITE "M"

In modern construction, noise is conspicuous by its absence . . . clatter and chatter belong to the "noisy-nineties" . . . yes—noise is on the way out, replaced by Today's Quiet Way . . . Sabinite "M".

—and what's more . . . "patch-as-patch-can" patterns are on the way out, too . . . No longer need the decorative scheme be tied to a fixed ceiling design . . . for Sabinite "M" is just as beautiful and no more noticeable than the plaster walls themselves. It follows flowing contours or simple, unbroken surfaces with ease and flexibility.

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All these advancements group themselves around the fact that Sabinite "M" is an acoustical plaster finish. Combines noise quieting, decoration, light reflection, and fire protection in one material. Can be used for new construction or reconditioning and sound conditioning present interiors as well.

Sabinite "M" follows accepted methods. Any good plasterer can apply it. All of this means that the "quality of quiet" is placed within reach of thousands of homes and buildings with Sabinite "M" . . . Today's Quiet Way.

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USG

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For Building • For Industry

Gypsum • Lime • Steel • Insulation • Roofing • Paint

FOR BETTER BUILDING

(Continued from page 26)

Heat Panel

Still another example of radiant baseboard heating is the *Base-Ray Heat Panel,* a unit expected to be available after the war for both new houses and modernization work.

The panel is so engineered, it is reported, that it is possible to heat the average room with a unit approximately the same size and no more conspicuous than the conventional baseboard which it replaces.

The Base-Ray is a hollow cast iron unit, 7 in. high and 1¾ in. wide, connected with the usual heating boiler. It can be used on all types of hot water jobs, the manufacturers say—forced circulation and gravity, one pipe and two pipe—and can also be used on two pipe steam and vapor installations. It is contoured to resemble a typical baseboard, with standard wood moldings at the top and bottom to add to its naturalness.

Installation is said to be easy. Sections are joined by means of push-nipple construction with short tie bolts. Valves, ells and traps are connected at bottom opposite ends—as with tube type radiators. These connections are concealed by metal enclosure which is flush with the front and top of the panels.

Base-Ray panels will be manufactured in 24-in. and 12-in. lengths, will be shipped assembled up to approximately 10 ft. Burnham Boiler Corp., Irvington, N. Y.

Hot Water Heating Controls

A three-way thermostatic valve that recirculates hot water and corrects for outside weather conditions, reducing temperature differentials, is a new development called *Sarcotherm.* Introduced before the war, it obtained priorities because of its fuel savings, and can be specified and obtained now. Sarcotherm Controls, Inc., 53 W. Jackson Blvd., Chicago 4, Ill.

For easier laundry planning: a model layout with scale models of equipment

LAUNDRY LAYOUTS

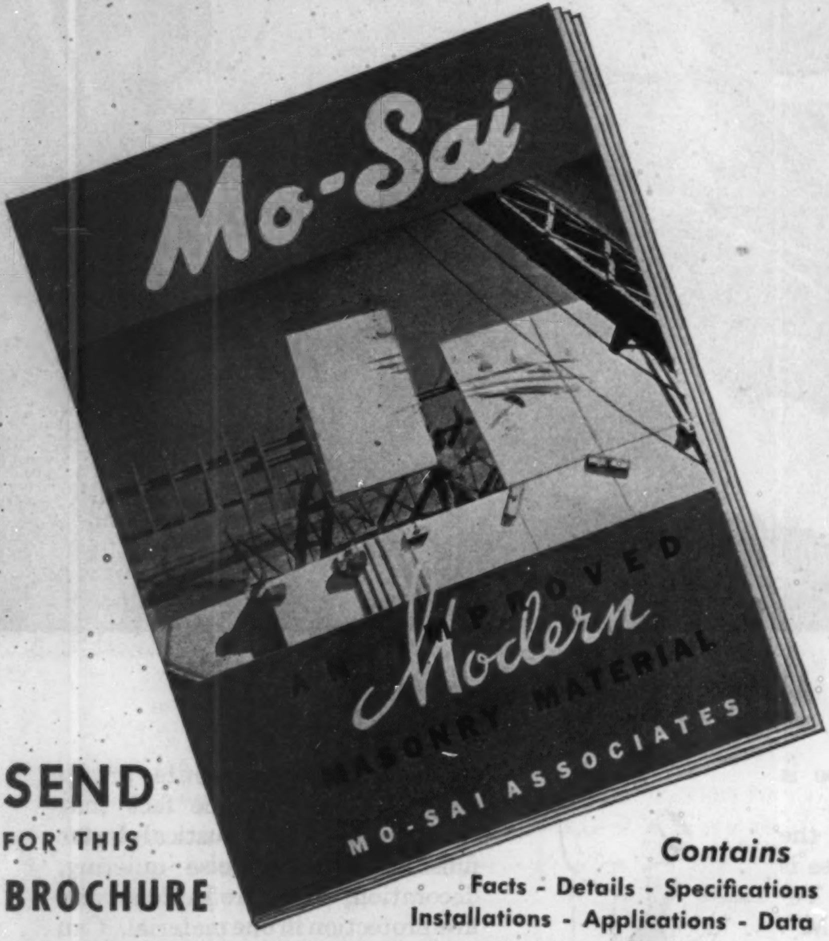
A three-dimensional "Photo-Plan" service is now offered by a laundry machine manufacturer to help laundry owners and operators and architects in their laundry planning.

From sketches, rough plans or blueprints, the engineers of the company will make a model laundry layout of the plan, utilizing scale models of machines and equipment to fit any individual floor arrangement and space limitations. This layout is photographed and the picture, together with complete specifications, is furnished to the architect. Troy Laundry Machinery Division of American Machine and Metals, Inc., East Moline, Ill.

FIRE EXTINGUISHER

A new fast-acting portable fire extinguisher, the *Alfite Speedex,* uses carbon dioxide as the extinguishing agent. Made in three sizes, Models 15, 10 and 4, the numbers indicating the pound capacity of the gas.

(Continued on page 126)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The modern masonry facing slab. For new and old buildings. 2 inches thin. Exposed aggregate finish. Large slabs, up to 100 sq. ft. and more. Colorful — Decorative — *Modern as Tomorrow.*

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MO-SAI ASSOCIATES, founded to standardize and improve architectural slabs. The trade mark "Mo-Sai" Reg. U.S. Pat. Off. is the property of the Dextone Co.

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PLASTIC REFLECTORS—PHOTO COURTESY OF THE F. W. WAKEFIELD BRASS CO.

Plastics . . . in Schools

After Victory, G-E Plastics Divisions will produce again for better living. The following list suggests the possible applications of G-E plastics in schools.

WALL SURFACING AND DOOR MATERIALS • COUNTER TOPS • DESK TOPS • FURNITURE MATERIAL • HARDWARE • LIGHTING FIXTURES • ELECTRICAL SUPPLIES AND PANEL BOARDS • BATHROOM FIXTURES AND SPECIAL PARTS

The General Electric Company offers architects, designers and engineers the service of its plastics technicians. These experienced men can give you technical advice and information on the use of all plastics materials—laminates, compression, injection and extrusion molded, low pressure and cold molded. The General Electric Company molds and fabricates all compounds that are on the market today and because of this is not limited to one particular material or manufacturing process. For further information write Section E-18, One Plastics Avenue, Pittsfield, Mass.

Hear the General Electric radio programs: "The G-E All-Girl Orchestra" Sunday 10 P.M. EWT, NBC. "The World Today" news every weekday 6:45 P.M. EWT, CBS. "G-E House Party" every weekday 4:00 P.M. EWT, CBS.

GENERAL ELECTRIC

PD-18

INSURE YOUR FUTURE BY BUYING WAR BONDS

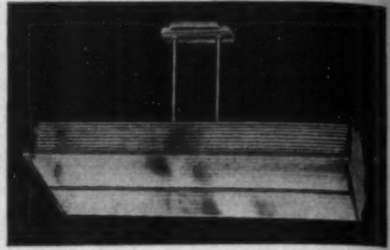
FOR BETTER BUILDING *(Continued from page 124)*

The unit is engineered to more speedily extinguish small oil or electrical fires, with no loss of the extinguishing gas on anything but the fire itself. The operating valve lever is directly above the carrying handle. It can be instantly opened by the pressure of the hand grip and as quickly closed by releasing the hand pressure while the operator is maneuvering his position. For continuous operation the D-yoke ring is slipped over the operating lever while it is depressed.

All models are approved by Underwriters' and Factory Mutual Laboratories. Models 4 and 15 also carry the approval of the U. S. Coast Guard. American - La - France - Foamite Corp., Elmira, N. Y.

DAMPER QUADRANT

Designed in a modern pattern for light industry and dwellings, a new damper quadrant comes in ¼-in. and ⅜-in. sizes, and is plated with rust-resisting cadmium. Features claimed are ease of installation, dependability of operation and ruggedness of construction. Available now for immediate shipment. Western Air Devices, Inc., 1349 E. Vernon Ave., Los Angeles.



Shielded type of fluorescent fixture features easy maintenance, good looks

LIGHTING

New Fluorescent

A new shielded type four-40-watt fluorescent, the *A-3440 Permaflector Fluorescent Luminaire,* has Satinol finished contrasting glass panels, easily removable for maintenance. May be individual, continuous, direct ceiling or suspension mounted. The Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa.

Lampholder

A fluorescent lampholder known as the *Twin Turret,* just announced, is said to be entirely new in design and construction. It is made for use with two 40-watt lamps, has a metal casing with insulated face. Starter sockets are an integral part of the lampholder, and are located between the lamps.

Features claimed for the new unit include easy mounting, simplified wiring and a new method of operation.

The Twin Turret can be mounted on any flat surface with two screws, preferably with lock washers under the screw heads. Tinned and stripped leads can be inserted through entrance holes in the face of the lampholder. Binding screws can then be tightened through the holes in the bottom to make permanent pressure contacts.

The method of inserting and removing the lamps is claimed to be a new contribution to fluorescent lampholder design. Each Twin Turret has two discs with holes for the pins of Mazda F lamps. Lamps can be inserted by depressing either disc with one end of the lamp until the other end clears the disc in the opposite lampholder and slips into place. Lamps can be removed by depressing the face of either Turret with one end of the lamp until the pins on the other end clear the opposite lampholder and slide out of place. General Electric Co., Bridgeport, Conn.

THE SPENCER *Cleaned* SKYLINE

Because few mammoth buildings have been built during the past ten years, some people forget that the majority of the biggest and best buildings of every kind in the country are Spencer Cleaned, including those shown in the New York "Skyline" above.

The reasons include faster, better cleaning; quiet, easy operation and a lower net cost in the long run.

An architect, after using a Spencer for thirty years in his own home, says "It has always been more efficient than the small portables."

Savings in larger buildings are ten-fold. Less dusting, less floor wax used. Radiators, filters, and boilers easily cleaned. Rugs, paint, decorations last longer. Ask for the bulletins.

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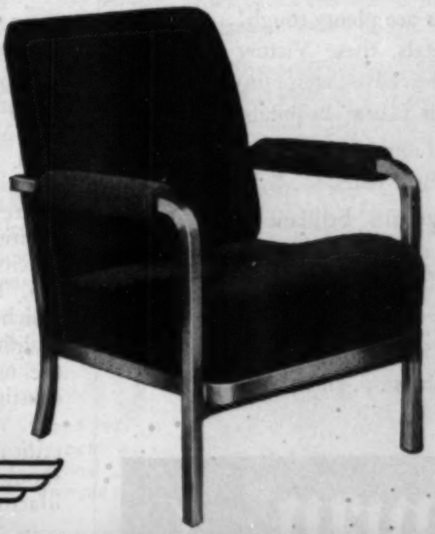
Have you ever noticed the contented look on a man's face when he sits down on a comfortable chair? **Goodform Aluminum Chairs** are primarily designed for Comfort. They are strong and sturdy. Their light weight makes them easy to move about. Their modern design and sparkling aluminum finish gives them a distinguished appearance. They require a minimum of maintenance and will serve for a lifetime.

After the war there will be a Goodform Aluminum Chair for every purpose — for offices, hotels, restaurants, clubs, hospitals, ships, trains and public buildings. There will be no better investment in seating than a

GOODFORM ALUMINUM CHAIR.



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THE RECORD REPORTS

(Continued from page 20)

PUBLIC WORKS ADVISORY COMMITTEE

Formation of a Public Works Construction Advisory Committee, composed of representatives of 11 national organizations engaged in or responsible for the planning, design, construction or operation of public works, has been announced by Maj. Gen. Philip B. Fleming, Federal Works Administrator. Col. William N. Carey, chief engineer, FWA, has been designated to act as contact between the committee and the administrator.

Committee members and the organizations represented are: Frederic Bass, American Public Works Ass'n.; E. Lawrence Chandler, American Society of Civil Engineers; F. Stuart Fitzpatrick, U. S. Chamber of Commerce; J. W. Follin, Producers' Council, Inc.; H. E. Foreman, Associated General Contractors of America, Inc.; Hal W. Hale, American Ass'n. of Highway Officials; S. Logan Kerr, American Society of Mechanical Engineers; Earl Mallery, American Municipal Ass'n.; and Maj. Edmund R. Purves, American Institute of Architects.

PRODUCERS' COUNCIL

New President Elected

L. C. Hart of New York, vice president of the Johns-Manville Sales Corp., was elected president of the Producers' Council at its recent annual meeting. He replaces Douglas Whitlock, general counsel of the Structural Clay Products Institute, president of the Council for the past two years.

Other officers elected are: Tyler S. Rogers, Owens-Corning Fiberglas Co., Toledo, Ohio, first vice president; Gordon C. Hay, Fiat Metal Mfg. Co., Chicago, second vice-president; Frank A. Sansom, Chamberlin Co. of America, Detroit, secretary; Allen E. Pearce, Armstrong Cork Co., Lancaster, Pa., treasurer.

Six-Point Program

One of the first acts by the new Council president was to recommend that the federal government adopt at the earliest practical date a six-point program designed to build up a normal supply of the building materials and equipment needed to permit urgently needed private construction. The six points are:

1. Manufacturers of building products should be permitted to utilize necessary materials and manpower for the making of patterns, for the reassembly of machinery, and for other basic production needs.
2. Building product manufacturers should receive assistance in obtaining priorities for additional machine tools and other production machinery and equipment.
3. Manufacturers should be provided with priority assistance for the construction required to readapt or modernize their buildings or to construct additions or new buildings needed to provide adequate plant capacity.
4. The WPB should rescind orders which restrict the manufacture of building products and which require the use of wartime specifications and substitute materials.
5. Adequate minimum amounts of critical materials and of manpower should be allocated to permit the manufacture of scarce or missing items.
6. The general inventory order should be relaxed in order to permit wholesalers and retailers of building products to build up the inventories needed before field construction can begin.

The same six recommendations were

(Continued on page 130)

HUSKY WAR BABY

The Von Duprin devices born of the war are plenty tough! Ever since war took away the fine metals, these Victory model Von Duprins of sturdy malleable iron have taken punishment at the busy exits of schools, war plants, hospitals.

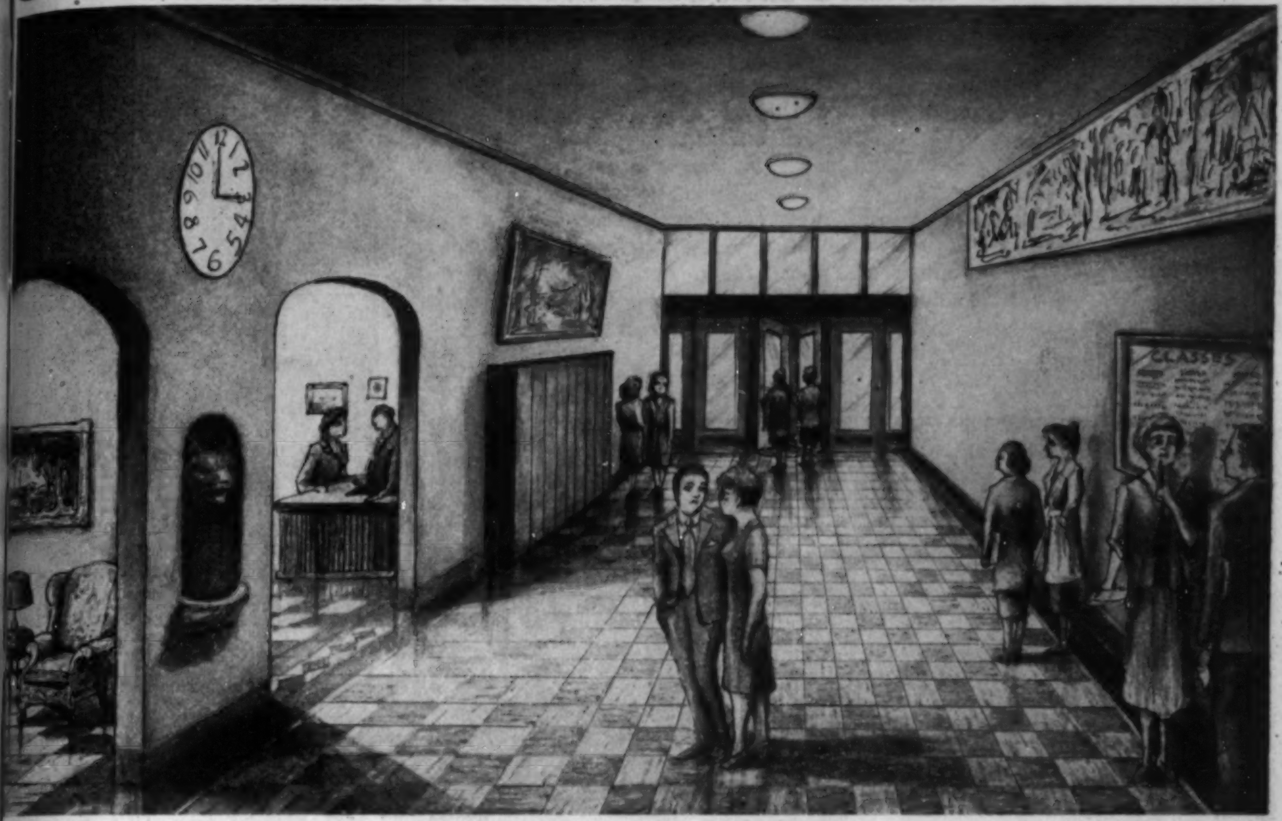
On many a door they have been operated almost constantly, twenty-four hours a day, for more than three years.

One of these days the post-war Von Duprins, brilliant in drop-forged bronze and brass, will be available. But in the meantime it is well to remember the superb job that the unpretentious, plain black Victory model devices have done.

They have shown themselves to be thoroughly reliable, abundantly strong . . . truly husky war babies . . . and we are proud indeed to call them Von Duprins.

Von Duprin
TRADE MARK REG.
DIVISION
VONNEGUT HARDWARE CO., INDIANAPOLIS, IND.

SERVICISED PRODUCTS CORP.



SERVICISED RUBBER TILE FLOORING

AGAIN AVAILABLE AFTER THE WAR!

THE UNIVERSAL FLOOR for HOMES, SCHOOLS, COLLEGES, LIBRARIES, CHURCHES, HOSPITALS, STORES, THEATRES, OFFICES and PUBLIC BUILDINGS — stronger and warmer than Asphalt Tile. Many distinctive patterns from which to choose in STANDARD RUBBER, CORK and RUBBER, and RUBBERLOK TILE.

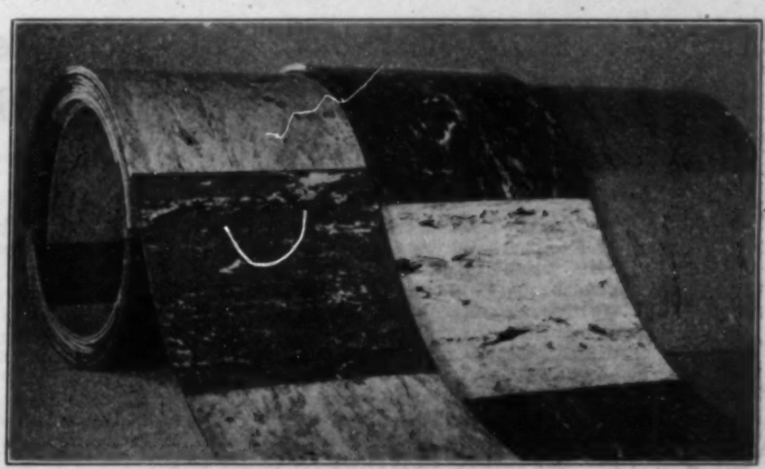
CORK-RUBBER TILE, is compounded of RUBBER and Pulverized CORK which is vulcanized and compressed into a flexible, smooth, and resilient floor. It is a warm and wear-resisting tile. This and the STANDARD RUBBER type are made in individual tiles with plain edges.

STAIR TREADS—Made of Asphalt Plank. A permanent and decorative material made of asphalt, mineral matter and a very tough fiber.

INDUSTRIAL ASPHALT PLANK is ready now for immediate shipment. Excellent for Basement Floors, Loading Platforms, Roof-Decking, Patios and Locker Rooms.

PARA-PLASTIC is a strong and elastic adhesive. Maintains bond at very low temperatures. 0° F.

RUBBERLOK—is a tongue and grooved RUBBER TILE made in strips shown below. Easy to lay; just unroll and cement to floor.



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6051 West 65th Street, Chicago 38, Ill.

THE RECORD REPORTS *(Continued from page 128)*

made by the Construction Industry Advisory Group and the Construction and Civic Development Committee of the Chamber of Commerce of the U. S. at a recent joint meeting.

Farm Construction

About $650,000,000, according to a forecast prepared by the Market Analysis Committee of the Producers' Council, will be spent annually during the five-year period starting 12 months after the end of the war for the construction of new farm homes and for the repair of existing homes.

Although this is only about half as much per farm family as the average non-farm family is expected to spend for residential construction and improvements during the same period, Wilson Wright, chairman of the committee points out, the total farm expenditure would be 30 per cent greater than in the highest previous year.

With RADIO CONTROL you simply push a button on the instrument board of your car to open or close garage doors!

Use the time-proved, dependable Barber-Colman RADIO CONTROL *for garage doors . . .*

We designed, built, and installed Radio Control for garage doors in 1926 — nearly 20 years ago! Between then and 1936 we redesigned the units several times, simplifying the equipment and improving its dependability of operation. For the last 9 years (except for the war period) we have been offering a successful system which has proved its reliability in hundreds of satisfactory installations. With indications of a growing demand for this outstanding convenience in post-war homes, we urge you to investigate the distinctive features of the BARBER-COLMAN Radio Control. Your Barber-Colman representative has complete information or, if you prefer, we will be glad to send you our descriptive literature. Be ready to specify BARBER-COLMAN time-proved, dependable RADIO CONTROL for garage doors!

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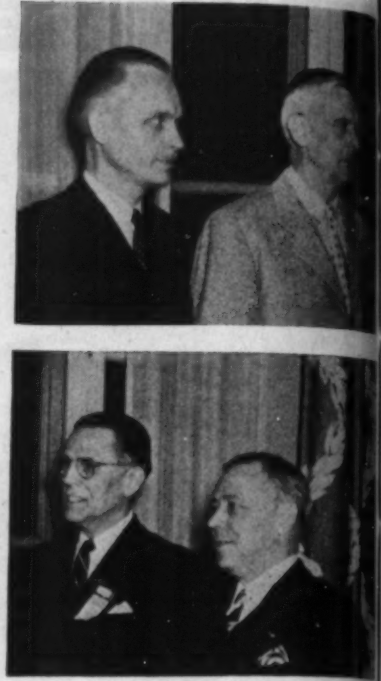
FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

BARBER-COLMAN COMPANY

102 MILL ST. • ROCKFORD, ILL.



New A.I.A. officers: vice president S. I Lunden and president J. R. Edmu (top, left to right); secretary A. C Robinson and treasurer C. Celle

A.I.A. CONVENTION

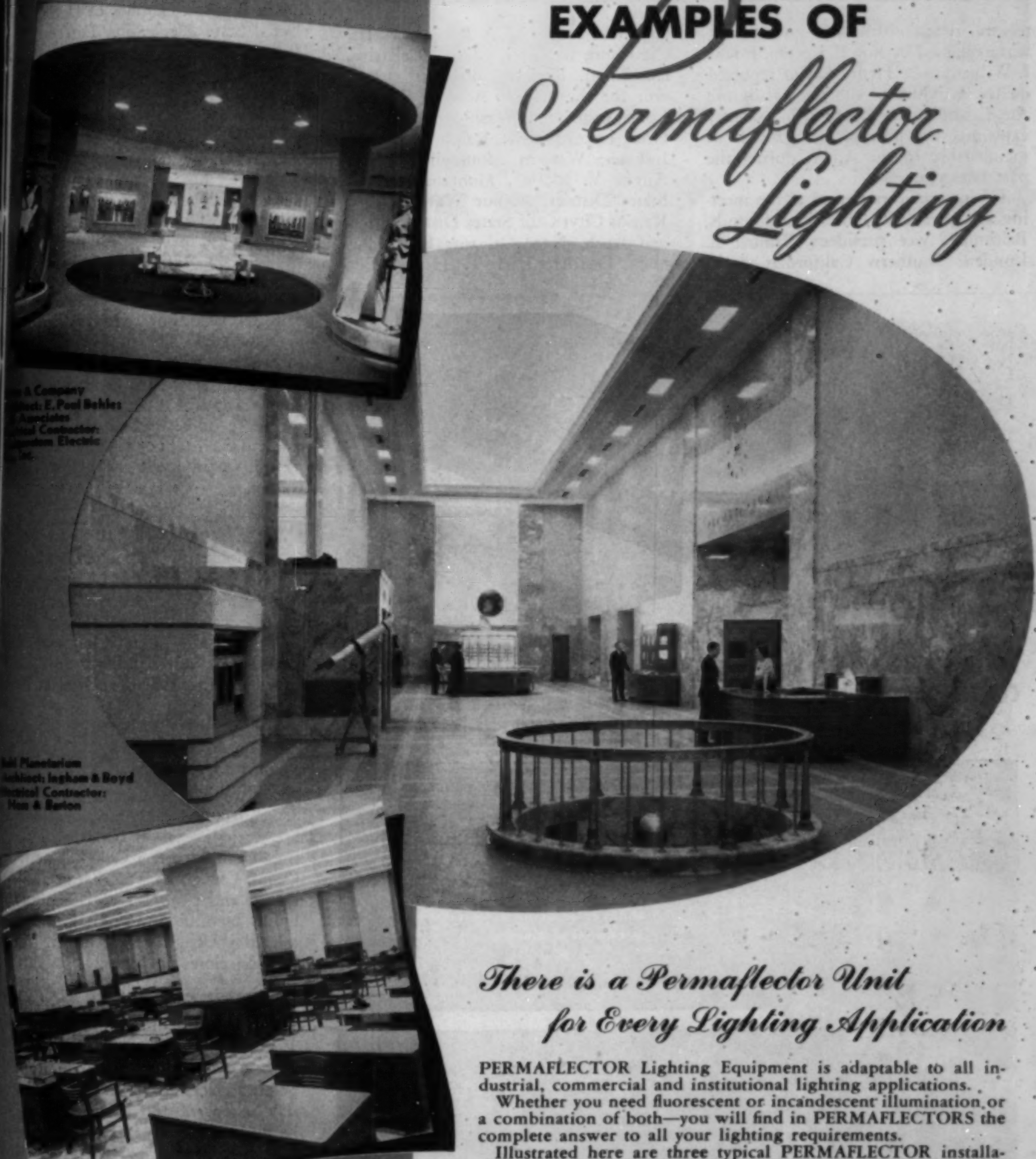
The official annual meeting of th A.I.A. in Atlantic City on April 2 and 25 was, because of transportati difficulties and ODT ruling, necessari a "rump session," limited to 50 a credited delegates. By arrangemen however, these delegates were empo ered by the chapters throughout th country to express the will of the co plete voting membership.

Business was carried on with di patch and aplomb under the gavel o retiring president Raymond J. Ashto Max Foley, of New York, reported o the findings of his Committee on Arc itectural Services and Fees, which a vocated a cost-plus-fixed-fee type o contract wherever possible. Gord Lorimer, chief of the Bureau of Arc itecture, New York City, gave a de onstration of dimensional coordinati illustrating his points with a mode Vice president Walter R. MacCorma set forth in some detail the propo for a "Foundation for the Advan ment of the Science and Art of Buil ing," which contemplates an integ tion of the building industry, comple with research and with scientific a well as public information sectio Walter T. Rolfe, chairman of the Co mittee on Education, reported on th activities of that committee; Matth Del Gaudio reported on Unificati Maj. Edmund R. Purves, the Wa ington representative, on activities i official Washington. The progress b ing made in cementing better arc

(Continued on page 132)

PITTSBURGH REFLECTOR COMPANY *Presents*

EXAMPLES OF *Permaflector Lighting*



& Company
tect: E. Paul Behles
Associates
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ell Planetarium
rchitect: Ingham & Boyd
ectrical Contractor:
Hess & Barton

Dovenmuehle, Inc.
Designer: Paul B.
Stevens, Jr.

There is a Permaflector Unit for Every Lighting Application

PERMAFLECTOR Lighting Equipment is adaptable to all industrial, commercial and institutional lighting applications.

Whether you need fluorescent or incandescent illumination or a combination of both—you will find in PERMAFLECTORS the complete answer to all your lighting requirements.

Illustrated here are three typical PERMAFLECTOR installations. They are indicative of the thousands of outstanding installations throughout the United States and the world in which PERMAFLECTORS have been used to achieve original lighting effects and efficient illumination.

The next time you want the distinctive in lighting—specify PERMAFLECTORS. They are simple to install, easy to maintain and provide maximum lighting efficiency as well as flexibility of design.

Full data on "light-engineered" PERMAFLECTOR Equipment is yours for the asking. Write for catalog AR-1.

"Pittsburgh"
Permaflector

Pittsburgh Reflector Company
OLIVER BUILDING · PITTSBURGH 22, PA.
Manufacturers of Permaflector Lighting Equipment Distributed by Better Electrical Wholesalers Everywhere
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PERMAFLECTORS · SPOTLIGHTS · FLOODLIGHTS · WIRING DEVICES · FLUORESCENT EQUIPMENT

THE RECORD REPORTS

(Continued from page 130)

tectural relationships with government was explained by Roy F. Larson, Edgar I. Williams and Henry Saylor reported on the activities of the *Journal of the A.I.A.*, and Julian Oberwarth modestly explained the phenomenal growth of membership in the A.I.A. during the past two years.

The new officers elected at the meeting are: president, James R. Edmunds, Baltimore; vice president, Samuel E. Lunden, Southern California; secretary, Alexander C. Robinson, III, Cleveland; treasurer, Charles Cellarius, Cincinnati. Regional directors elected are: for the Middle Atlantic District, Louis Justement, Washington, D. C.; Great Lakes District, Ralph O. Yeager, Indiana; Western Mountain District, Angus V. McIver, Montana; Central States District, Arthur Ward Archer, Kansas City; Gulf States District, Richard Koch, New Orleans; Sierra Nevada District, Earl T. Heitschmidt, Southern California; South Atlantic District, John L. Skinner, Florida South. Branson Gamber of Detroit was elected State Association Director, and William G. Kaelber of Rochester, N. Y., New York State Association Director.

EXHIBITIONS

Architects' Contribution to War

Soon after V-Day a great public exhibit providing visual evidence of the contribution which architects have made to the war effort, and the extent to which the profession is prepared to make an even greater contribution to better peacetime living, will be held in New York City, it is announced by Morris Ketchum, Jr., chairman of the Committee on Fields of Practice, New York Chapter, A.I.A., which will sponsor the exhibit. Both illustrative material and examples of products for building and equipment for living will be shown.

Homes of Tomorrow

A "Homes of Tomorrow" exhibition will be opened at the Newark (N.J.) Museum on Nov. 30. Preliminary plans include scale models by Raymond Barger, Normal Bel Geddes and Ruth Hornbostel, and compact and simple furniture, fireproof draperies, etc.

Andean Architecture

The Metropolitan Museum of Art, New York City, is currently showing an exhibition of photographs entitled "Architecture of the Andes." Subjects are ecclesiastical and domestic buildings of the Spanish Colonial period in Quito, Cuzco, La Paz, Lima and Arequipa, and plans for a civic center for Quito by Guillermo Jones Odriozola, a leading Uruguayan architect. The exhibition closes on June 24.

SUMMER COURSES

The Institute of Design, Chicago, has announced a summer session from July 2 to August 11. The curriculum will be an accelerated version of the regular day school of the Institute, and will be given simultaneously at the Institute in Chicago and its farm near Somonauk, Ill. Courses will include architecture and product design, drawing and color, basic workshop, cameraless photography (photograms), weaving and sculpture. For further information address the Institute at 247 E. Ontario St., Chicago 11, Ill.

NEW YORK REGISTRATION

Two laws recently enacted in New York State are of interest to architects and engineers:

Professional Licenses—law continues

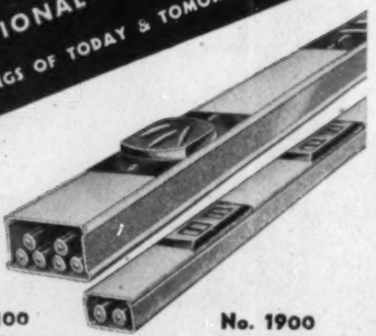
(Continued on page 134)

WHAT TO USE

Know your WIREMOLD

FUNCTIONAL WIRING

FOR THE BUILDINGS OF TODAY & TOMORROW



PLUGMOLD

THE WIREMOLD PLUG-IN-ANYWHERE CONVENIENCE OUTLET SYSTEM

No. 2100 PLUGMOLD

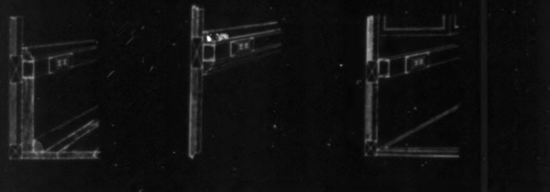
No. 1900 PLUGMOLD

WHERE TO USE IT

AT CHAIR RAIL
AT BASEBOARD

PLUGMOLD brings a new conception of convenience and utility to wiring of factories, hospitals, offices, stores, hotel rooms and homes. "All the outlets needed exactly where they are needed" . . . with ability to add, relocate or remove outlets in a matter of minutes.

HOW TO USE IT



Plugmold continuous outlet system built into the baseboard at chair rail height, and installed at baseboard height.

HOW TO GET MORE DETAILED INFORMATION

Write THE WIREMOLD COMPANY HARTFORD 10, CONN.

SEE OUR CATALOG IN SWEET'S

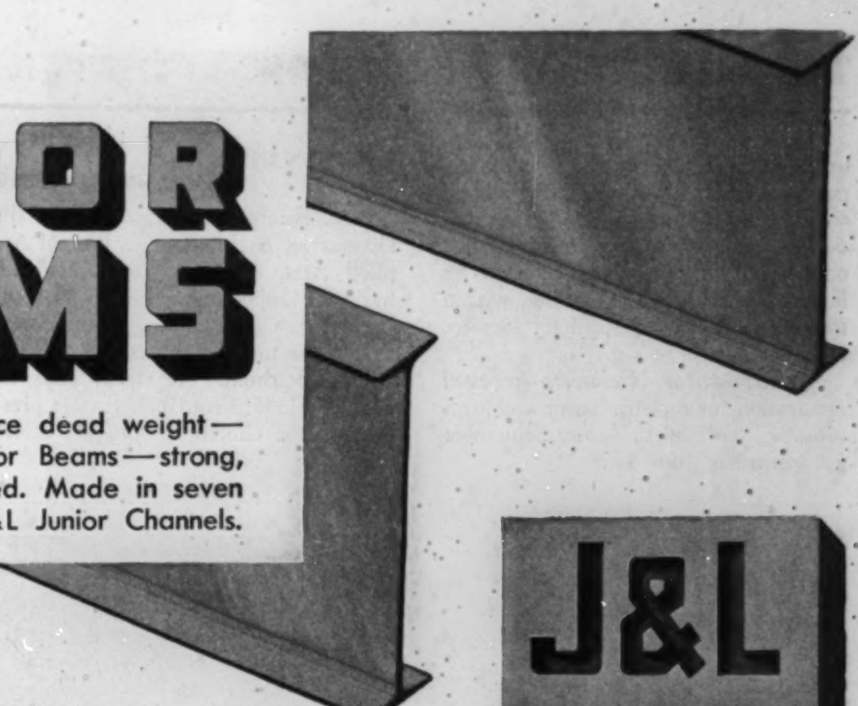
Full detailed information concerning Plugmold Systems is available in new bulletins and data sheets. We shall be glad to send you these upon request to

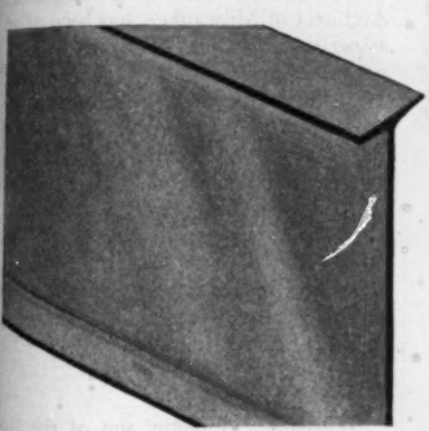
THE WIREMOLD COMPANY
HARTFORD 10, CONN.

J&L

JUNIOR BEAMS

Maintain structural strength — reduce dead weight — with J&L Controlled Quality Junior Beams — strong, lightest-weight steel I-sections rolled. Made in seven sizes. A perfect companion to J&L Junior Channels.





J&L STEEL

JONES & LAUGHLIN STEEL CORPORATION
PITTSBURGH 30, PENNSYLVANIA

REMEMBER THIS!

Built-in telephone facilities add real value to the homes you build. Yet it costs little during construction to install telephone conduit with conveniently located outlets. Now is the time to plan for the day when home owners can again have all the telephones they want—by providing for *concealed* wires to rooms where telephones will be most useful. Your telephone company will be glad to help you mark your plans.

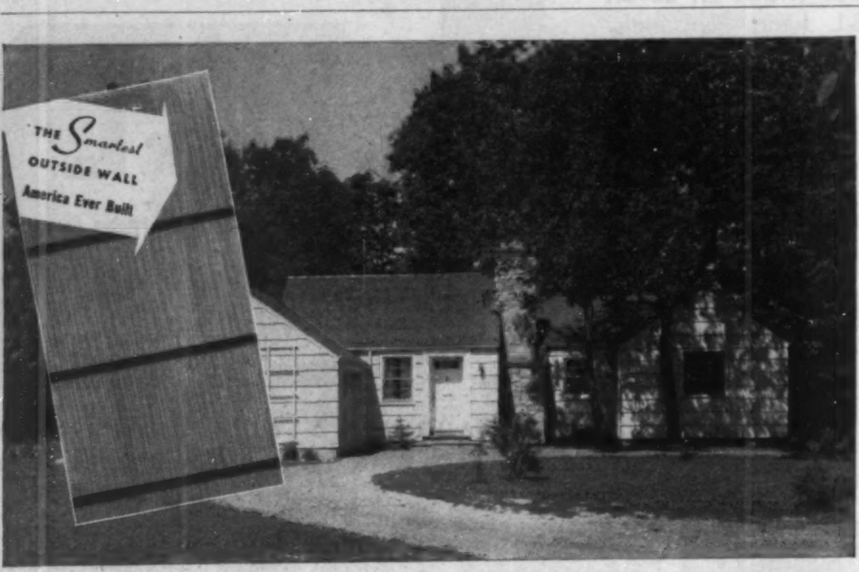
BELL
TELEPHONE
SYSTEM

to July 1, 1946, provision permitting persons inducted into military service and licensed to practice medicine, dentistry and other professions and occupations to apply for renewal of license without examination within three months after military service ends.

Registration of Architects—renewal application for registration or architects must be made on or before September 1st instead of June 1st.

CINCINNATI POST FOR PICKERING

Prof. Ernest Pickering, head of the Division of Architecture, School of Applied Arts, University of Cincinnati, has been appointed a member of the Cincinnati City Planning Commission, to fill the unexpired term of the late Alfred Bettman. The term ends on Dec. 31, 1947. Prof. Pickering is president of the Cincinnati Chapter of the A.I.A.



CREO-DIPT Double-Wall

Zephyrs

Zephyrs are deep textured red cedar shingles pre-stained by Creo-Dipt in beautiful colors . . . easily and quickly installed over the underwall of moisture resistant *Zephyr Insulation Backing Board.*

Charm and distinction are combined with superior durability and insulation qualities in this new *Zephyr Double-Wall Method.*

For a portfolio of photographs showing other attractive homes, and full information for Architects, write Creo-Dipt Company, Inc., General Offices: North Tonawanda, New York. 8b/7.

CREO-DIPT
Shingles and Stains

OFFICE NOTES

Firms Merge

The firm of G. Richard Davis & Co., Inc., has joined Hegeman-Harris Co., Inc., 331 Madison Ave., New York. Mr. Davis has been elected vice president of Hegeman-Harris; Mr. John C. Hegeman continues as president.

Company Expands

Walter Dorwin Teague, industrial designer, has extended the services of his organization to the Pacific coast. The new Teague offices are located in the Title Guarantee Bldg., Los Angeles.

New Firm Members

William C. Schneider, Registered Architect of Milwaukee, has become an associate in the office of Frank J. Hoffman, architect, of 201 6th St., Racine, Wis. Mr. Schneider is a member of the Wisconsin Chapter of the A.I.A. and the State Association of Wisconsin Architects.

David Gordon, recently chief engineer for the Interchemical Corp., has joined the staff of Foster D. Snell, Inc., as director of engineering. Address: 305 Washington St., Brooklyn 1, N. Y.

Succeeds Father

William N. Gillette, son of the late Leon N. Gillette, has succeeded his father as a partner in the architectural firm of Walker and Gillette, 19 E. 53rd St., New York 22. A graduate of the Yale Architectural School, he has been with the firm for nine years.

Office to Be Reopened

Edwards and Jahn, architectural engineers, 58 College St., Providence, R. I., expect to resume active practice shortly, following their release from the Service.

New Addresses

N. A. Habersack, architect, has moved to Room 1218 Tribune Bldg., 154 Nassau St., New York City.

Because of a recent fire, Wadsworth, Boston & Tuttle, architects, have temporarily moved their offices from 57 Exchange St. to 98 Exchange St., Portland 3, Maine.

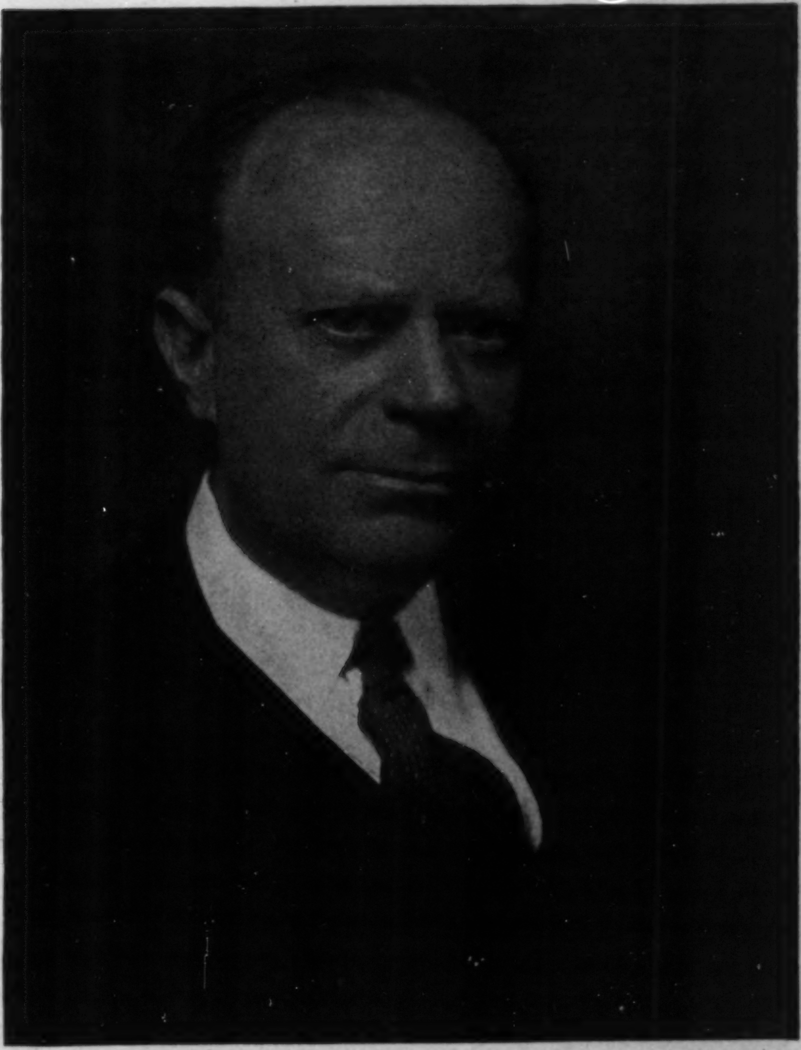
The American Society of Refrigerating Engineers has moved its national headquarters offices to 40 W. 40th St., New York 18, N. Y.

AMG RECONSTRUCTION

Under the guidance of the Allied Commission's 8th Army AMG, reconstruction of the 2,000-year-old Adriatic town of Rimini, Italy, is getting under way. Eighty-five percent of the town was destroyed before it fell to the Allies eight months ago.

(Continued on page 136)

This is one of a series of advertisements telling what leading Consulting Engineers think of modern steam heating.



Edward E. Ashley, Consulting Engineer, New York, N.Y. Member of ASME, ASH&VE, and AIEE.

"*In school heating,* the different occupancy requirements of classrooms, study halls, dormitories, gymnasiums and other sections—and often varying temperatures dictated by use—present problems that call for control (1) at the source and (2) at the several zones," writes Edward E. Ashley. "Moderate, closely-regulated steam heat solves these problems and, at the same time, provides highly efficient operation and greatest comfort... Steam is the accepted medium for school heating—because it is flexible; because it can be more perfectly balanced than other media; and because it can be accurately controlled... When War Economy puts the emphasis on Fuel Conservation, the Heating Industry emphasizes *Control.*"

▲

Following are some of the schools for which Edward E. Ashley has specified Webster Systems of Steam Heating: Lincoln School for Teachers' College, New York, N.Y.; Albany High School, Albany, N.Y.; Eastview Junior High School, White Plains, N.Y.; Battle Hill Junior High School, White Plains, N.Y.; Junior High School, New Rochelle, N.Y.; Glenfield School, Montclair, N.J.; Columbus High School, Columbus, Ga.; Cypress St. School, Greensboro, N.C.

WARREN WEBSTER & COMPANY, Camden, New Jersey
Pioneers of the Vacuum System of Steam Heating
Est. 1888 : : Representatives in Principal U. S. and Canadian Cities
Darling Brothers Limited, Sole Manufacturers and Licensees for Canada

STEAM Heats America . . .

THE RECORD REPORTS *(Continued from page 134)*

Even before the town had fallen, plans for its reconstruction had begun, under the leadership of Commendatore Elio Alessandroni, a local contractor. Then the AMG moved in, headed by Lt. Peter Natale of Hoboken, N. J., who immediately called a meeting of all the local architects, engineers and contractors. The new town plan was enthuiastically accepted, and the townspeople got to work cleaning up the bomb damage and shell destruction. The work is being done on a wholly volunteer basis; a free technical school, the first in Italy—sponsored by the AMG and paid for by local professional men—has been opened.

The final design of the new town plan was made by Attilio La Padula, prizewinner in the town planning competition of the University of Bratislava in 1940. The plan will cost $200,000,000 and will take 12 years to complete. The rebuilt city will cover an area of 15,000,000 square meters, almost seven times the area of the old Rimini. New, modern houses will be erected and sold on an installment basis; each citizen will own his home—no houses will be rented.

MAKE IT WITH WHITE

White Cement makes the most BEAUTIFUL TERRAZZO

"Make it with white!" That's what architects who know their terrazzo say . . . . Nothing but white cement as a matrix can give that clean-cut, clearly defined identity to chips and their colors. Only white can bring out the delicate or full colors and the light contrasting pastel tints in your designs when color pigments are added. The difference in cost is only a few cents a square foot. To secure the best in terrazzo, start with white cement . . . . that means Medusa—the original White Portland Cement.

MEDUSA PORTLAND CEMENT COMPANY
1015 Midland Building, Dept. A • • Cleveland 15, Ohio

MEDUSA the ORIGINAL WHITE portland cement

LEON N. GILLETTE

Leon N. Gillette, a member of the New York architectural firm of Walker & Gillette, died on May 3 following a long illness. He was 67.

A native of Malden, Mass., Mr. Gillette received a certificate in architecture from the University of Pennsylvania in 1899, and a diploma from the Ecole des Beaux Arts, Paris, in 1903. He was connected with the firm of Warren & Wetmore from 1903 to 1906, when he and A. Stewart Walker formed the partnership of Walker & Gillette. Their work included banks, hospitals, office buildings, apartment houses and hotels, among them the National City Bank Buildings at Canal Street, New York, in Havana, Paris, Buenos Aires, Panama and Puerto Rico; the Grasslands Hospital buildings, East View, N. Y.; the County Center, White Plains, N. Y.; Playland Amusement Park, Rye, N. Y.; and the city of Venice, Fla., with its hotels, schools, stores and railroad station.

Mr. Gillette was a former president of the New York Society of Beaux-Arts Architects, a fellow of the American Institute of Architects, a member of the Architectural League of New York and of the Beaux Arts Institute of Design.

JOHN A. HOLABIRD

John Augur Holabird, a member of the Chicago architectural firm of Holabird & Root, died in Chicago on May 4, his 59th birthday.

Mr. Holabird and his firm were the architects for a number of well-known projects, including the U. S. Federal Loan Agency and the Statler Hotel in Washington, D. C.; the Army Air base on Jamaica, B.W.I.; the Chicago Daily News Building, the Palmer House, Stevens Hotel and Hotel Sherman in Chicago. Mr. Holabird was chief architect for the Jane Addams and Trumbull Park housing projects in Chicago.

A graduate of West Point with the class of 1907, Mr. Holabird was a fellow of the American Institute of Architects and a member of the Chicago Plan Commission.

N. MAX DUNNING

N. Max Dunning, architectural advisor to the commissioner of the Public Buildings Administration, designer of the Furniture Mart in Chicago, and one of the organizers of the Architec-

(Continued on page 138)

ANY HEAT TROUBLE?

"Fumes and blistering heat from our forging and heat treating operations were cutting our production of tank shafts, torsion bars, axles and other necessary military parts. Employees could work only 30 minutes per hour. Absenteeism was high, even in winter . . . About two years ago, we installed a BURT Monovent Continuous Ridge Ventilator. It reduced the temperature at working levels 20° to 30° and eliminated all fumes. We have had absolutely no ventilating trouble since! Workmen turn in a full hour's production, absenteeism is low and our output has increased in proportion."

"LOTS OF IT"

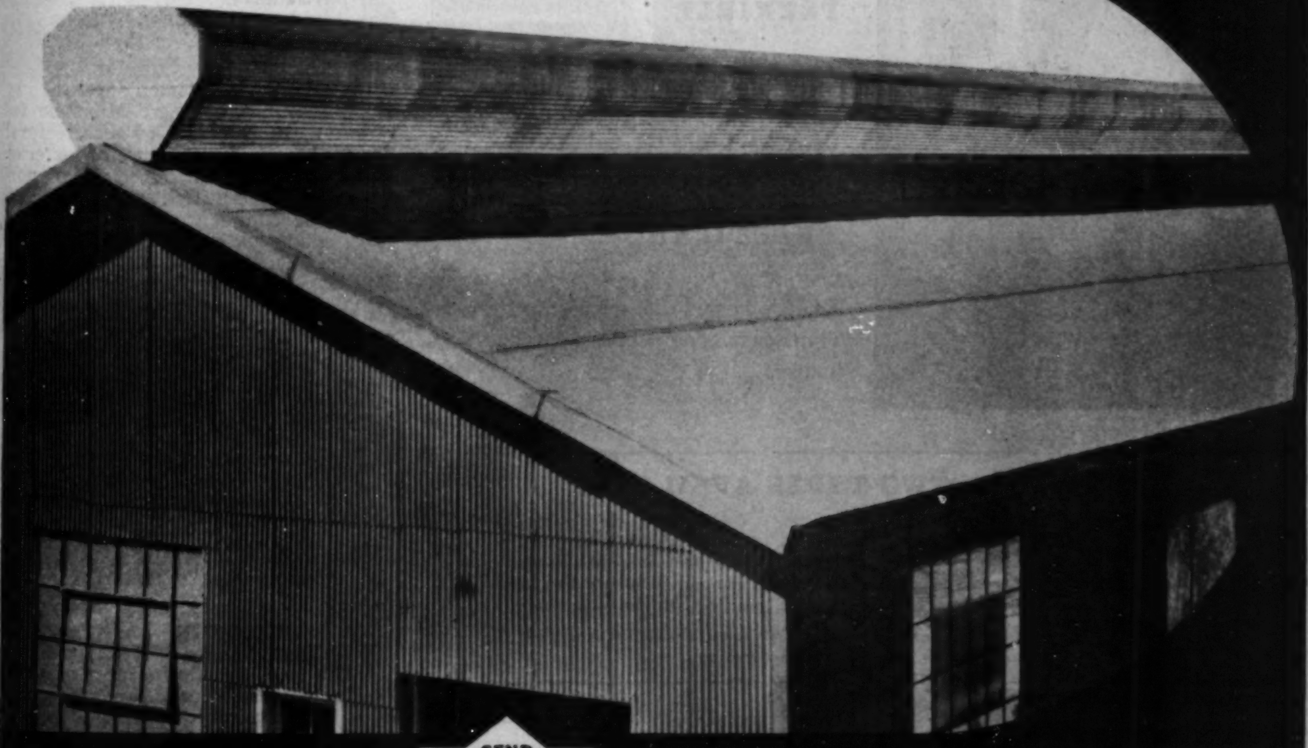
at this WAR PRODUCTION PLANT

THE MONOVENT IS VERSATILE

The BURT Monovent on this installation has a 36" throat and is 189 feet long — the entire length of the building. It is weather-proof, simple to operate, requires almost no maintenance and is highly efficient. BURT Monovent is versatile. Installations have been made from 1 foot to 1,000 feet in length — from 4" to 72" throat sizes. It can do a small or a big ventilating job for you.

BURT HAS THE COMPLETE LINE

No matter what your ventilating problem may be, BURT has the answer in its complete line of fan, gravity and continuous ridge ventilators — engineered and designed from BURT'S know-how of more than half a century. Write BURT for help on your ventilating needs. BURT engineers are available, without obligation, any time.



THE BURT MFG. CO.
ROOF VENTILATORS • OIL FILTERS
EXHAUST HEADS
179 So. Main St., Akron 11, O.

SEND FOR CATALOGS
•
Burt Engineers are glad to help on plans

THE RECORD REPORTS

(Continued from page 136)

tural League of America, died in Washington, D. C., on April 19. He was 72.

Mr. Dunning, a well-known housing authority, entered government service during World War I as a member of the Requirements Division of the U. S. Housing Corp. He remained in government service until his death, holding various architectural and housing posts in federal agencies.

Born in Kenosha, Wis., Mr. Dunning attended the University of Wisconsin from 1891 to 1894, and in 1900 won the first traveling scholarship of the Chicago Architectural Club, which enabled him to continue his architectural studies abroad. Among the many buildings of his design are the Winton Hotel in Cleveland (now the Carter Hotel), the Lake Shore Club and the Hayes Hotel in Chicago, and the National Cloak and Suit Building in Kansas City. He was a fellow of the American Institute of Architects.

These 3 advantages come with

BENNETT

Fireplaces

ADAPTABLE

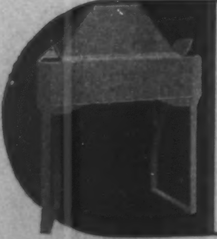
Simple and easy to fit into your plans for any kind of home—new or remodeled.

FLEXIBLE

Gives you unrestricted freedom to design the fireplace—any way you want it.

PRACTICAL

Provide homes with evenly distributed, circulating warmth—without smoke.



TWO TYPES AVAILABLE

FRESH-AIRE—Designed especially for tightly constructed, fully insulated, weather-stripped homes. Special intake draws fresh air from outdoors.

WARM-AIRE—Recommended particularly for homes that are not fully insulated and weather-stripped. Intake draws cool air supply from indoors.

Both types supply evenly distributed, circulating warmth—without smoke.

Send for Fireplace Catalog—or see Sweet's

Bennett-Ireland

645 MAPLE STREET, NORWICH, NEW YORK

OPPORTUNITIES AVAILABLE

PRODUCT DESIGN ENGINEER: Graduate architect or industrial design engineer, under 35 years of age, to initiate and develop new consumer product designs in glass. Should have manufacturing experience and ability to coordinate his work with Sales, Production and Research departments.

Here is a real opportunity to join America's leading glass manufacturing company. This is a new position, with excellent prospects for the man willing and able to do creative work. If not now engaged in essential war work, write Personnel Department, giving complete description of education, professional experience, draft status. Enclose recent photograph. Salary commensurate with abilities. All replies confidential. Corning Glass Works, Corning, N. Y.

A southern architect's office would like to secure an all-round, experienced architectural draftsman. Permanent position for the right man. *Box 38,* ARCHITECTURAL RECORD, *119 West 40th Street, New York 18, N. Y.*

WANTED: Architects and architectural draftsmen by architectural firm in the middlewest. Application should state experience, definite references and salary desired. *Box 40,* ARCHITECTURAL RECORD, *119 West 40th Street, New York 18, N. Y.*

ARCHITECTURAL DESIGNER & DRAFTSMAN: Permanent Openings in established St. Louis office. Principal practice — Churches, Schools, Hospitals. Give age, experience, State full particulars. *Box 42,* ARCHITECTURAL RECORD, *119 West 40th Street, New York 18, N. Y.*

Experienced draftsmen wanted by midwest manufacturer. Must be familiar with all phases of architectural drafting, particularly store exterior and interior work. Excellent opportunity for present and postwar period. Write in confidence giving full details education, experience, and salary desired. *Box 44,* ARCHITECTURAL RECORD, *119 West 40th Street, New York 18, N. Y.*

Rapidly expanding store planning organization needs talented men—excellent draftsmen experienced in store planning, interior design, store fixture design, cabinet and woodworking detailing. Give age, experience, education, salary. Replies confidential. *Box 46,* ARCHITECTURAL RECORD, *119 West 40th Street, New York 18, N. Y.*

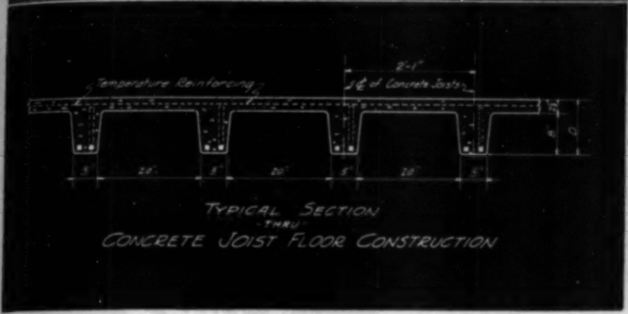
EXCEPTIONAL POSTWAR OPPORTUNITIES FOR TOP-FLIGHT SALES MANAGERS, RETAIL STORE DESIGNERS, AND ARCHITECTURAL DRAFTSMEN, with nationally known manufacturer of storefronts, entrance doors, and new postwar building materials sold through established distributor organization and backed by extensive national promotion program. Write in full confidence, giving details education, business experience, etc. Address—PERSONNEL DIRECTOR, THE KAWNEER COMPANY, NILES, MICHIGAN.

How to lower centering costs and speed up construction

USE CONCRETE JOIST CONSTRUCTION

and CECO *Engineering Service*

STEP 1. CECO ENGINEERS PREPARE INSTALLATION DETAILS

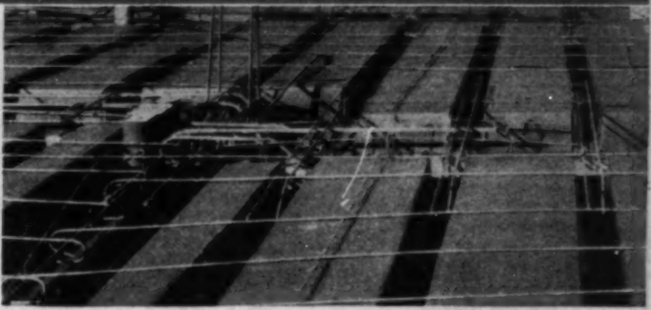


Ceco's experience with 250,000,000 sq. ft. of concrete joist floor construction lies behind every Ceco installation detail. Here is a typical cross-section thru concrete joist construction.

Feel free to consult Ceco when you use concrete joist construction. Capable engineers in 22 offices are always ready to help in the preparation of designs and estimates . . . help cut costs!

STEP 2. CECO CONSTRUCTION EXPERTS SUPERVISE PLACING OF MEYER STEELFORMS

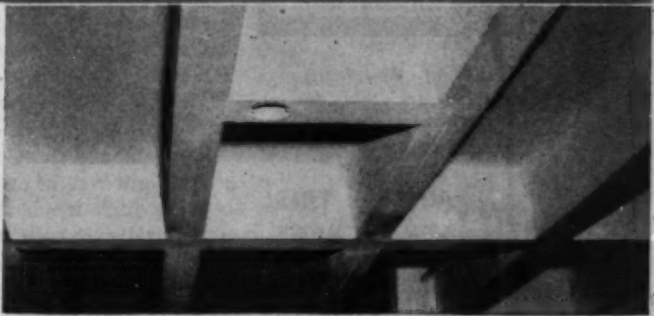
All Meyer Steelform construction requires is this simple open wood centering that may be re-used from one floor to next as can Meyer steelforms. Eliminate extra lumber cost save time, increase efficiency.



To eliminate leakage of concrete and insure accurate execution of structural design Meyer Steelforms must be correctly placed. Here you see the proper accurate alignment on a Ceco supervised job.

RESULTS: NEAT TRIM CEILING JOISTS AT LOWER COST!

Here you have fireproof construction at the cost of non-fireproof construction. This clean functional ceiling used to advantage in warehouses, light manufacturing buildings and garages!



Close-up shows the finished character of ceiling joists built with Meyer Steelforms. Concrete joists can be left exposed or finished with a flat ceiling hung from the construction.

30 YEARS OF EXPERIENCE IN REINFORCED CONCRETE!

CECO STEEL PRODUCTS CORPORATION

Concrete Engineering Division—5701 W. 26th St., Chicago, Ill.

MANUFACTURING DIVISION, SHEET STEEL AND WIRE DIVISION, HIGHWAY PRODUCTS DIVISION

ENGINEERING MAKES THE BIG DIFFERENCE IN CECO CONSTRUCTION PRODUCTS

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METAL CRAFTS cm

100 years of know how in the fabrication of ornamental metals, with examples of our fine craftsmanship adorning thousands of the finest buildings in America. You can entrust your blueprints to us with perfect assurance of accurate estimating, conscientious production, careful attention to every detail. We invite your correspondence on work covered by proper priorities, as well as projects which may be in the plan stage for post war.

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Calendar Cases
Card Frames
Check Desks
Collapsible Gates
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Name Plates
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IN ALL METALS

For details of Metalcraft Service, we refer you to Sweets 1945 Architectural File.

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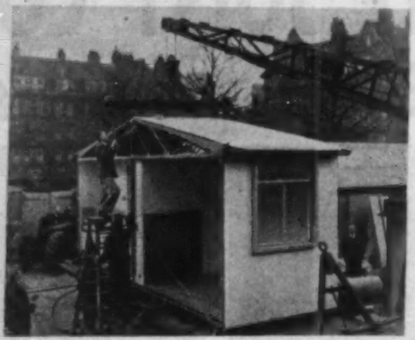
CINCINNATI METALCRAFTS Inc.
DEPT. AF-545, 34TH AND ROBERTSON
CINCINNATI 9, OHIO

THE RECORD REPORTS

(Continued from page 10)



British Official photos

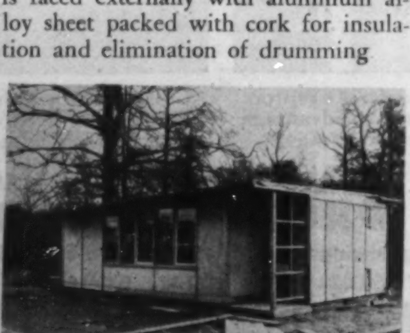
Section of an Airoh house (kitchen and living room) is lifted from the trailer

so badly damaged that they are uninhabitable. To help meet the resultingly acute housing shortage, the British government at present plans to erect 145,000 prefabricated houses, including the 30,000 being built here.

One of the new types of prefab developed in England is the Airoh aluminum house, designed by the Aircraft Industries Research Organization on Housing. It is made in four sections, each complete in itself. The sections are coupled by interlocking fastenings within a few hours, and when services have been joined up and loose furniture moved in, the house is ready.

A bungalow-type building, the Airoh's entrance and hall give direct access to the living room, bathroom and both bedrooms. The kitchen, which has a side entrance, opens out of the living room, with a glazed partition between. the bedrooms are separated from the living quarters by the hall; between the various rooms are built-in cupboards for storage space.

The floor frame is made in aluminum alloy faced with normal timber floor boards. The walls are faced externally with alloy sheet painted with a rough cast finish of stone appearance, and internally with plaster board and spray-painted in color. The wall filling is a light weight aerated cement which has a high insulation value. The roof is faced externally with aluminum alloy sheet packed with cork for insulation and elimination of drumming



Front of first U. S. prefab in Britain

IF IT'S A FENCE FOR A HOME OR A FACTORY—

CONSULT Stewart FIRST!

● Stewart Iron Picket Fence is manufactured in a wide range of standard designs. But where a special fence is required, Stewart will faithfully reproduce architects' drawings and specifications. Chain Link Wire Fence is made in several styles from low lawn fence to non-climbable type with barbed wire overhang. Talk over your fence plans with Stewart . . . there's no obligation. Catalogues sent on request.

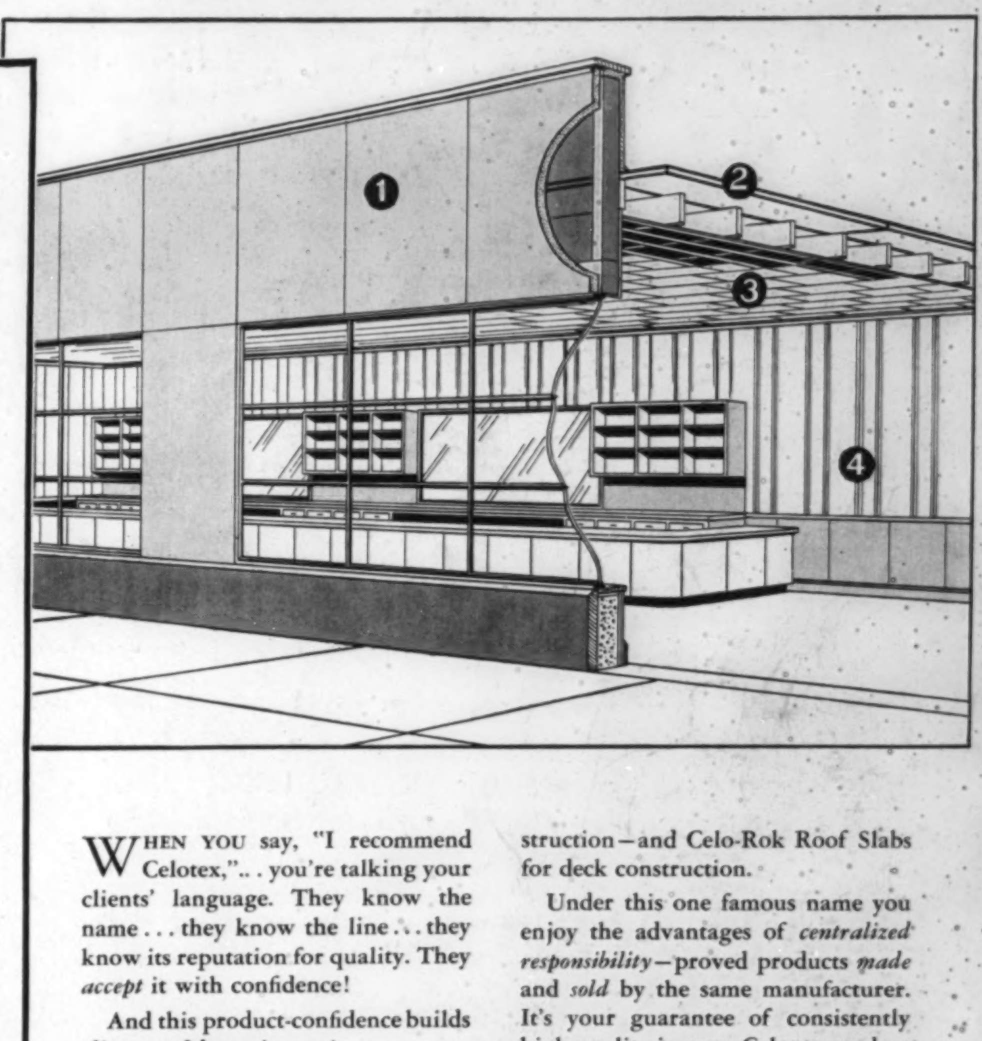
THE STEWART IRON WORKS CO., Inc.
1277 Stewart Block, Cincinnati 1, Ohio
Experts in Metal Fabrications Since 1886

Stewart IRON and WIRE FENCES

For MODERN Commercial Construction

Specify the Leader...

CELOTEX BUILDING PRODUCTS



1 CEMESTO WALL UNITS

can be used with wood or steel construction. Simplification of framing, fire-and-moisture resistance – plus versatility – are major advantages of Cemesto. Made with core of Celotex rigid cane fibre insulation, sheathed on both sides with 1/8" layer of asbestos cement bonded to core with bituminous asphalt adhesive. Sizes: 4' wide panels, 4', 6', 8' 10' or 12' long, in thicknesses of 1 1/8", 1-9/16" and 2".

2 CELO-ROK ROOF SLABS

provide strong roof decks that save time and lumber–offer excellent bonding surface for built-up roofing materials. Inside surface has good light reflection value – can be painted if desired. Celo-Rok Roof slabs are laminated 1/2" sheets of fireproof gypsum wallboard – 1", 1 1/2" and 2" thick. Width: 2 ft. Lengths 8, 9, and 10 ft. All thicknesses available with long edges shiplapped. 1 1/2" roof slabs also furnished with long edges T&G.

3 CELOTEX INSULATING TILE BOARD

–a predecorated insulating interior finish material with concealed nailing joints for ceilings and walls. Applied to correctly spaced framing or furring in new construction, or directly over sound old plaster in remodeling, this tile board provides beauty and insulation in one application, at one low cost. Sizes: 12" x 12", 16" x 16", 16" x 32" in half-inch thickness.

4 CELOTEX INSULATING FINISH PLANK

combines decorating and insulating values in a structural interior finish material for ceiling and walls. Many interesting effects can be had by using either regular or random widths. May be applied to properly spaced open framing or furring. Bevelled interlocking joint on long edges only. Sizes: 8', 10', 12' long–8", 12", 16" wide. Half-inch thick. Type "Double A" Joint.

When you say, "I recommend Celotex,".. . you're talking your clients' language. They know the name . . . they know the line . . . they know its reputation for quality. They *accept* it with confidence!

And this product-confidence builds *client*-confidence in *you!*

Twenty years of effective national advertising–plus more than twenty years of use–have established ready-acceptance for Celotex.

That's why–for *modern* commercial construction–it will pay you to specify Celotex Building Products. Such products, for example, as Celotex Finish Plank–Celotex Tile Board–Cemesto Wall Units for exterior construction–and Celo-Rok Roof Slabs for deck construction.

Under this one famous name you enjoy the advantages of *centralized responsibility*–proved products *made* and *sold* by the same manufacturer. It's your guarantee of consistently high quality in *every* Celotex product you specify.

At Your Service–
Celotex Service Engineers!

Without obligation, one of these specialists will meet with you, review your designs, suggest time- and money-saving methods for installing Celotex Building Products. Write: *The Celotex Corporation, Dept. AR-645, Chicago 3, Illinois.*

CELOTEX
REG. U.S. PAT. OFF.
BUILDING PRODUCTS

Buy an EXTRA Bond Today . . . and Keep ALL the Bonds You Buy!

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS

The Imperial Hotel
THE HOUSE OF PERSONAL SERVICE
BROADWAY AT STARK
PORTLAND & OREGON

March 21, 1945

Sloan Valve Company
Chicago,
Illinois.

Gentlemen:

The Imperial Hotel was built in December, 1909, and has been kept modern. During that period it has been necessary to make important changes, and the hotel has been remodeled three times, but no replacement has ever been necessary in the Sloan Valves which were installed at the time the hotel was built. Dependability of operation over 36 years service and extremely low maintenance costs speak for themselves, to be sure, but to confirm this outstanding performance let me say that Sloan will always be our choice whenever Flush Valves are selected.

Yours very truly,
IMPERIAL HOTEL CO.,

Phil Metschan

Phil Metschan
President.

Sloan Valve Company has been awarded the Army-Navy "E" three times for excellence in production.

A PERFECT 36 YEAR RECORD

FOR SLOAN FLUSH VALVE

"The house of personal service"

The Imperial Hotel, Portland, Oregon, has been remodeled three times since its construction in 1909. This was done in the interest of maintaining the high standards set by its slogan: "The House of Personal Service." Yet—the Sloan Flush Valves which were a part of the original equipment have never been replaced. They are still in perfect operating condition after 36 years of continuous service.

Added to this splendid record of performance is Mr. Metschan's testimony of complete satisfaction. He adds that "Sloan will always be his choice in Flush Valves."

We urge *you* to make inquiry of performance records—water saving records—and maintenance cost records. You will find Sloan Flush Valves *unequalled* on all counts—three of the many reasons why Sloan is the world's most popular Flush Valve.

Yes—there are millions more Sloan Flush Valves in service than all other makes combined.

SLOAN VALVE COMPANY
4300 WEST LAKE STREET, CHICAGO 24, ILLINOIS

*What they dream about
STAMATY
* WHAT THEY SEE...

"This place reeks with atmosphere, but for my part I'll take a Suntile kitchen. It's COLOR BALANCED!"

What is Suntile color balance? It is the scientifically balanced relationship of the colors in the Suntile palette. Recognizing the importance of color in everyday living, seven years ago Suntile pioneered the way in color selection and introduced its now famous principle of color balance.

The Suntile palette is based on long years of research in the field of color. The endless variety of color combinations possible with Suntile provides the architect with the maximum number of artistic and authentic arrangements. Suntile's color glazes are all scientifically selected for distinctive and lasting beauty.

Suntile will be made again when our war assignment is completed. Plan now to include the color-balanced beauty of Suntile in your blueprints for tomorrow.

Suntile
Bright with color-Right for life

Suntile Was
FIRST
With Color Balance

THE *Cambridge* TILE MFG. COMPANY
MEMBER OF THE PRODUCERS' COUNCIL
MEMBER OF THE TILE COUNCIL OF AMERICA

CINCINNATI 15, OHIO

★ THIS SERIES IS BASED ON AN IDEA SUGGESTED IN LETTERS WRITTEN BY CPL. LOUIS A. PERKOVIC OF THE ARMY ENGINEERS IN THE SOUTH PACIFIC
ANOTHER GOOD SUGGESTION: BUY YOUR SHARE OF WAR BONDS DURING THE SEVENTH WAR LOAN AND KEEP THEM INTACT UNTIL THEY REACH MATURITY

A MODERN approach to

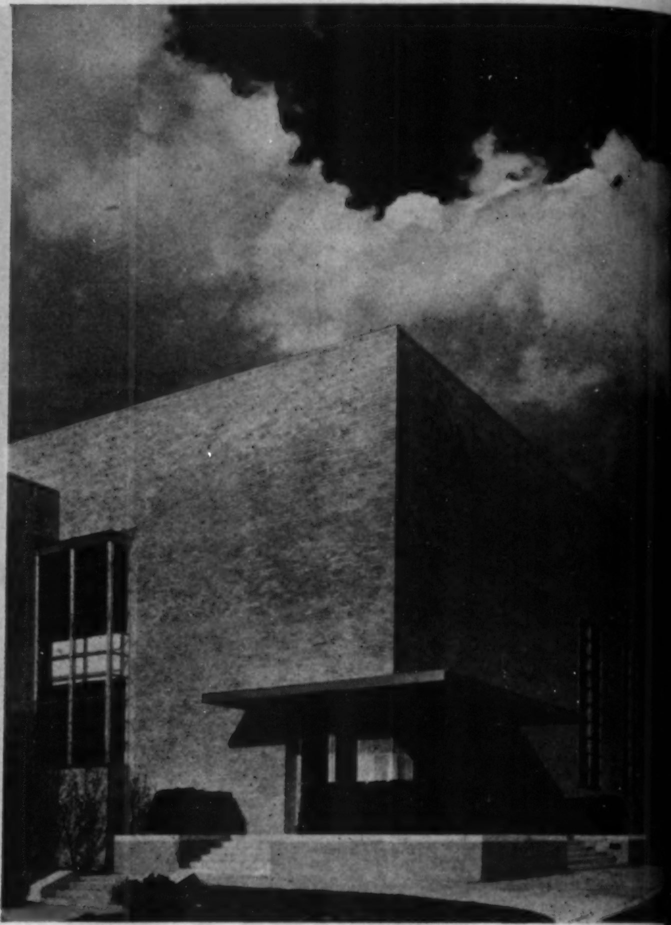
"OUR TAXPAYERS GOT A LOT OF BUILDING FOR THE MONEY THEY INVESTED . . ."

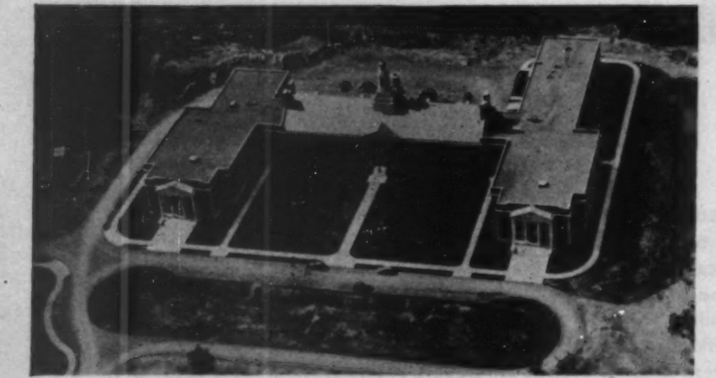
The recent letter from which the above is quoted was written by the Superintendent of Schools, Harrison, N. Y., District No. 6, Mr. Louis M. Klein, who continued . . . "and 4 years of use of this building have proved it to be a thoroughly well-constructed, practically laid out, and a genuinely usable and functional school building which has been a real asset to our community."

The impressive educational and social results which the School Board of Harrison, N. Y. has attained with this outstandingly-modern functional plant is so immediately apparent that even a layman is deeply impressed.

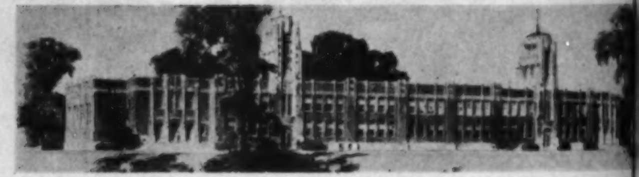
The precision and efficiency in human relations with which this school entity functions amply justifies the first paragraph of Mr. Klein's letter, which attitude an observer would be certain is shared by the entire school staff . . .

"I am very proud of our new High School building which was constructed in 1939-40, and which was made possible by the vision of our Board of Education and the authorization of our taxpayers. Mr. Vignola, the Architect, did an excellent job in the design and layout of the building. This has been the fourth year of use of this building which from an educational point of view has been extremely functional. The upkeep of the building has been kept to a real minimum by the type of construction and the type of materials put into the building, which have been very serviceable."





Air view of the Central School, Goshen, New York, a large and exceptionally well-appointed school building of which the impressive wings are shown in a smaller picture below. Robert R. Graham, Architect.



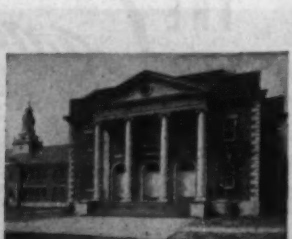
Above, large Central School, Dundee, N. Y. Robert R. Graham, Architect. Below, Elementary School, Montpelier, Vermont, also designed by Robert R. Graham, Architect.

The four views, left to right, Fort Ann School, Fort Ann, N. Y. Carl W Clark, A.I.A., Architect.

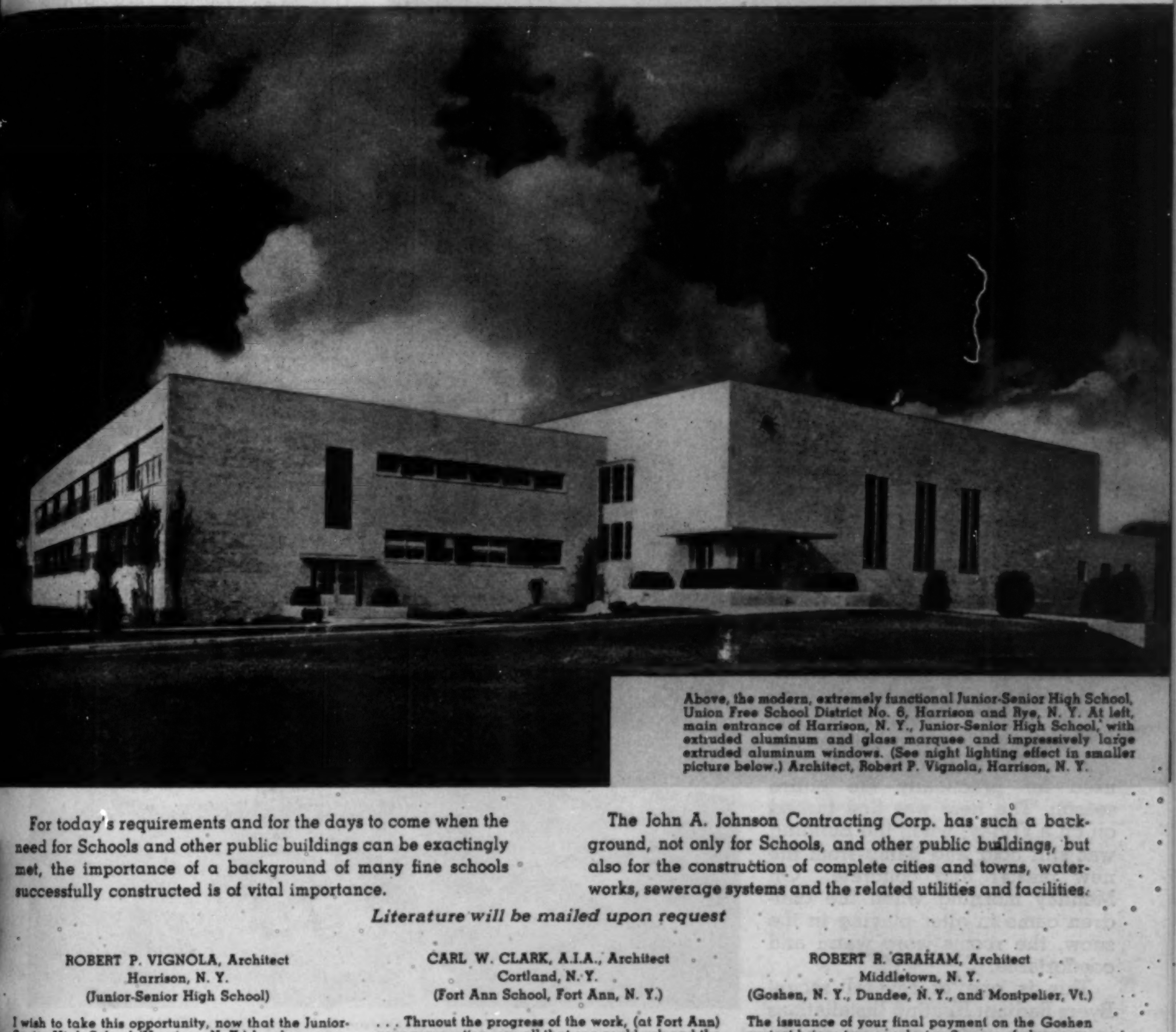
Close-up view of one wing, Central School, Goshen, N. Y. Robert R. Graham, Architect.

Night view, Junior-Senior High School, Harrison, N. Y. Robert P. Vignola, Architect.

Library and Reading Room, Central School, Goshen, N. Y. Robert R. Graham, Architect.



SCHOOL Construction



Above, the modern, extremely functional Junior-Senior High School, Union Free School District No. 6, Harrison and Rye, N. Y. At left, main entrance of Harrison, N. Y., Junior-Senior High School, with extruded aluminum and glass marquee and impressively large extruded aluminum windows. (See night lighting effect in smaller picture below.) Architect, Robert P. Vignola, Harrison, N. Y.

For today's requirements and for the days to come when the need for Schools and other public buildings can be exactingly met, the importance of a background of many fine schools successfully constructed is of vital importance.

The John A. Johnson Contracting Corp. has such a background, not only for Schools, and other public buildings, but also for the construction of complete cities and towns, waterworks, sewerage systems and the related utilities and facilities.

Literature will be mailed upon request

ROBERT P. VIGNOLA, Architect
Harrison, N. Y.
(Junior-Senior High School)

I wish to take this opportunity, now that the Junior-Senior High School (Harrison, N. Y.) has been completed, of expressing my appreciation of the business-like way in which your firm carried thru this half million dollar project.

I can assure you that should I have another similar project, I sincerely hope that you may be the successful bidder and that I may have the opportunity of renewing the pleasant relations that have existed throughout the entire construction of this school.

(Signed) Robert P. Vignola

CARL W. CLARK, A.I.A., Architect
Cortland, N. Y.
(Fort Ann School, Fort Ann, N. Y.)

. . . Thruout the progress of the work, (at Fort Ann) your corporation was all that one could ask and the completed product is one of which the School authorities, the State authorities and this office are justly proud.

Our administration work was made easy due to the efficient office practices of your company.

(Signed) Carl W. Clark, A.I.A.

ROBERT R. GRAHAM, Architect
Middletown, N. Y.
(Goshen, N. Y., Dundee, N. Y., and Montpelier, Vt.)

The issuance of your final payment on the Goshen project brings to a conclusion 3 years of close association with you on the construction of 3 of my largest school buildings.

It seems appropriate now to thank you for your careful work and to congratulate you on your organization, your superintendence and ability to expedite your work.

It has been a pleasure to work with you, and I trust that we will soon have work which will be of interest to you.

(Signed) Robert R. Graham

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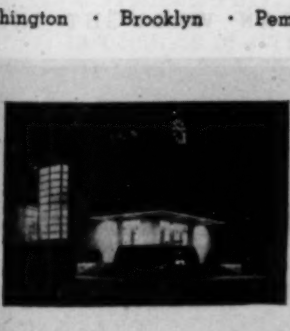
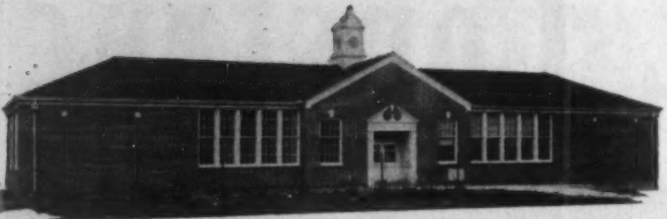


"A Firm Foundation
Since 1896"

LOOKING into the FUTURE
AFTER 48 YEARS
1896-1944
CONTRACTING CORP

Send for Brochure AR 64



FAIRVIEW SCHOOL
Springfield, Missouri

C. A. BISSMAN R. P. STAHL
Architects

McCARTY
PLUMBING and HEATING CO.
Heating Contractor

BYERS RADIANT HEATING goes to *School* again . . .

Replacing a building which burned, this new Fairview School is a one-story, basementless structure, founded on a concrete slab. It has three school rooms, a cafeteria and a small boiler room, and it serves a country district in the Springfield area. Cost was approximately $25,000.

Byers Wrought Iron pipe was fabricated into pipe grids by welding, laid on a gravel bed, and covered with a concrete topping. Hot water from the heating boiler is circulated by thermostat-controlled pump.

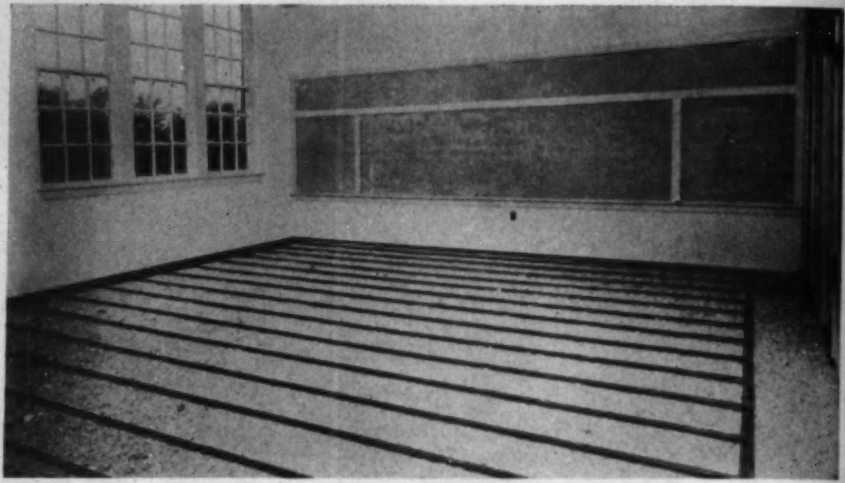
This last winter provided a severe test. Only 16 tons of coal were used for practically the entire season. The heat was first turned on on a Friday, when the building was still cold and damp from the new plaster and concrete. On Monday morning when the children came in after playing in the snow, the rooms were warm and comfortable.

This is one of several recent Byers Radiant Heating Installations in schools, which provide an excellent "laboratory" for anyone who has school jobs on the boards or in prospect. In addition to the obvious advantages of space-saving, elimination of torrid and frigid zones, and the removal of safety hazards, Byers Radiant Heating is the only heating system that solves the cold-floor problem, and so permits the use of basementless construction with its attendant economies.

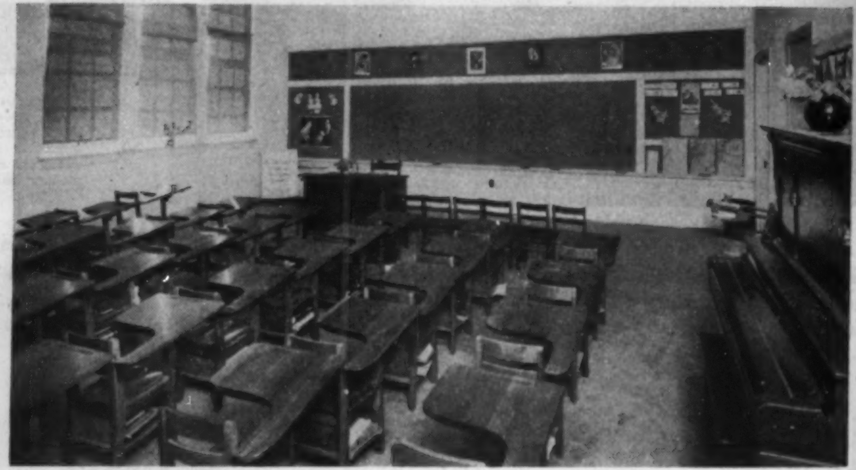
These installations, like a thousand others, also demonstrate the essential contribution made by Byers Wrought Iron. The material is easily formed and welded. It expands and contracts at practically identical rates with concrete and plaster, eliminating the danger of thermal cracks. It has a high rate of heat emission. And its corrosion resistance—a vital requirement—has been conclusively demonstrated.

Our new technical bulletin, "Byers Wrought Iron for Radiant Heating," said to be the most complete and comprehensive treatment of the subject ever put between two covers, is just recently off the press. Would you like a copy?

A. M. Byers Co., Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.



Byers Wrought Iron pipe grid in classroom



The completed classroom—all area usable

CORROSION COSTS YOU MORE THAN WROUGHT IRON

BYERS
GENUINE WROUGHT IRON
TUBULAR AND HOT ROLLED PRODUCTS
ELECTRIC FURNACE ALLOY STEELS · OPEN HEARTH ALLOY STEELS
CARBON STEEL TUBULAR PRODUCTS

In this attractive Domestic Science Room of the J. W. Sexton High School in Lansing, Michigan, Nairn Linoleum is used on floor, borders and base, as well as on work surfaces and window ledges. The walls, also, are Nairn Wall Linoleum.

eets all four "musts" for modern school floors . . .

ALL FOUR "MUSTS" for a modern school floor— appearance, resilience, durability, ease-of-maintenance— are met with Nairn Linoleum.

Floors of Nairn Linoleum are colorful, easy to keep clean and sanitary. Their proved wearing qualities insure long, trouble-free service, even in areas of heaviest traffic. *Their quality is backed by the reputation of the oldest manufacturer of linoleum in America.*

In Kindergartens, High Schools, Great Universities, Educational Institutions of every type, this most modern of floors—Nairn Linoleum—is daily proving itself the outstanding floor for tomorrow's school building.

For a specially prepared handbook on Linoleum specifications, write to Congoleum-Nairn Inc., Kearny, N. J.

For modern floors and walls

NAIRN LINOLEUM

easy to maintain,
colorful, permanent, resilient.

When your plans for post-war schools are completed will they include the most advanced system of classroom ventilating?

It would be unfortunate to enter the new era with outmoded ventilating methods.

Plainly, classroom ventilation is one thing the teacher of tomorrow should not have to think about!

And she won't — nor will you — if you install a fully automatic Nesbitt Syncretizer in every room.

Each classroom is a unit of activity, and each Syncretizer unit provides air conditions accordingly.

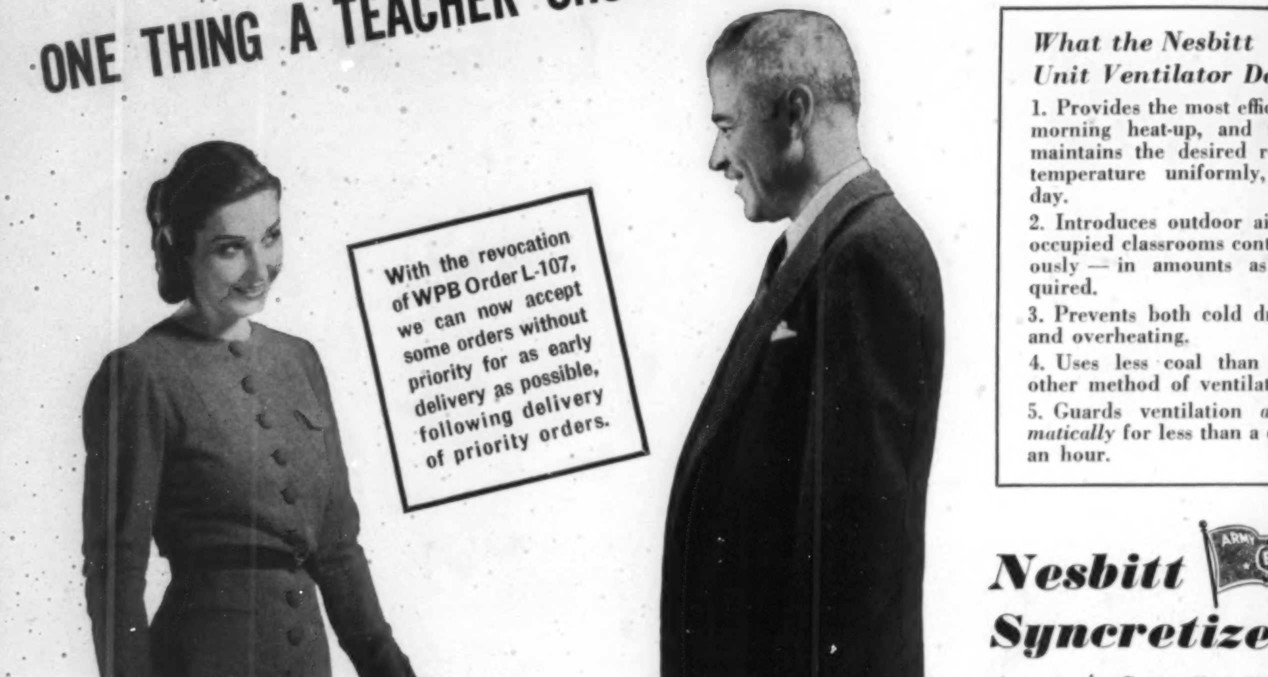
Every occupied classroom gets outdoor air *continuously* — in varying quantities, as required.

The Syncretizer uses less coal than any other method of ventilation.

Dual controls prevent both cold drafts and overheating.

And this *fully automatic* air guardian works for less than a cent an hour.

ONE THING A TEACHER SHOULD NOT HAVE TO THINK ABOUT!



With the revocation of WPB Order L-107, we can now accept some orders without priority for as early delivery as possible, following delivery of priority orders.

What the Nesbitt Unit Ventilator Does:

1. Provides the most efficient morning heat-up, and then maintains the desired room temperature uniformly, all day.
2. Introduces outdoor air to occupied classrooms continuously — in amounts as required.
3. Prevents both cold drafts and overheating.
4. Uses less coal than any other method of ventilation.
5. Guards ventilation *automatically* for less than a cent an hour.

Nesbitt Syncretizer

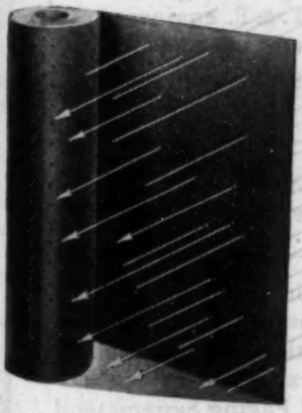
Automatic Controlled Ventilation for Individual Classrooms

THE SYNCRETIZER IS MADE AND SOLD BY JOHN J. NESBITT, INC., PHILADELPHIA 36, PA. • SOLD ALSO BY AMERICAN BLOWER CORPORATION

NO BLISTER PROBLEM HERE

NOW OR LATER!

Ruberoid Air-Vent Felt being applied to the roof of Shibe Park, Philadelphia's big league baseball stadium.


Pin-Point perforations form "Inlet" and "Outlet" valves . . . vapor escapes through perforations and helps prevent roofs from blistering and buckling.

● It is no longer necessary to worry about blister trouble on smooth-surfaced built-up roofs.

Ruberoid's Air-Vent Felt* controls the blisters and air pockets that cause lifting and bulging . . . and in the simplest possible way!

Patented Air-Vent Felt has pin-point perforations—punched alternately from top and bottom—that form "Outlet" and "Inlet" valves. When Air-Vent is laid, the air or vapor below is forced out through these tiny "Outlet" valves. At the same time asphalt seeps through the "Inlet" valves giving a better bond between the layers of felt. As a result Air-Vent adheres to the mopped surface much better than ordinary felt, and once down it stays put! . . . no blister problems because there are no air bubbles to expand and lift the felt from below.

Ruberoid Air-Vent Felts are available in both Asphalt and Asbestos types . . . both proved in practical performance. Ask your approved Ruberoid contractor, or write for full specifications.

*PAT. NO. 2096784

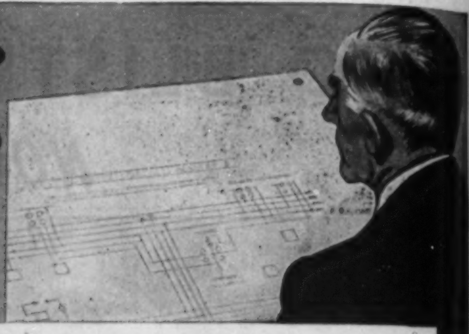
The RUBEROID Co., *Executive Offices:* 500 Fifth Ave., New York 18, N. Y.
ASPHALT AND ASBESTOS BUILDING MATERIALS . . . THERMAL INSULATIONS

RUBEROID

PERFORATED

AIR-VENT FELT

IF WE WERE IN THE MARKET FOR HOSPITAL COMMUNICATING AND SIGNALLING EQUIPMENT

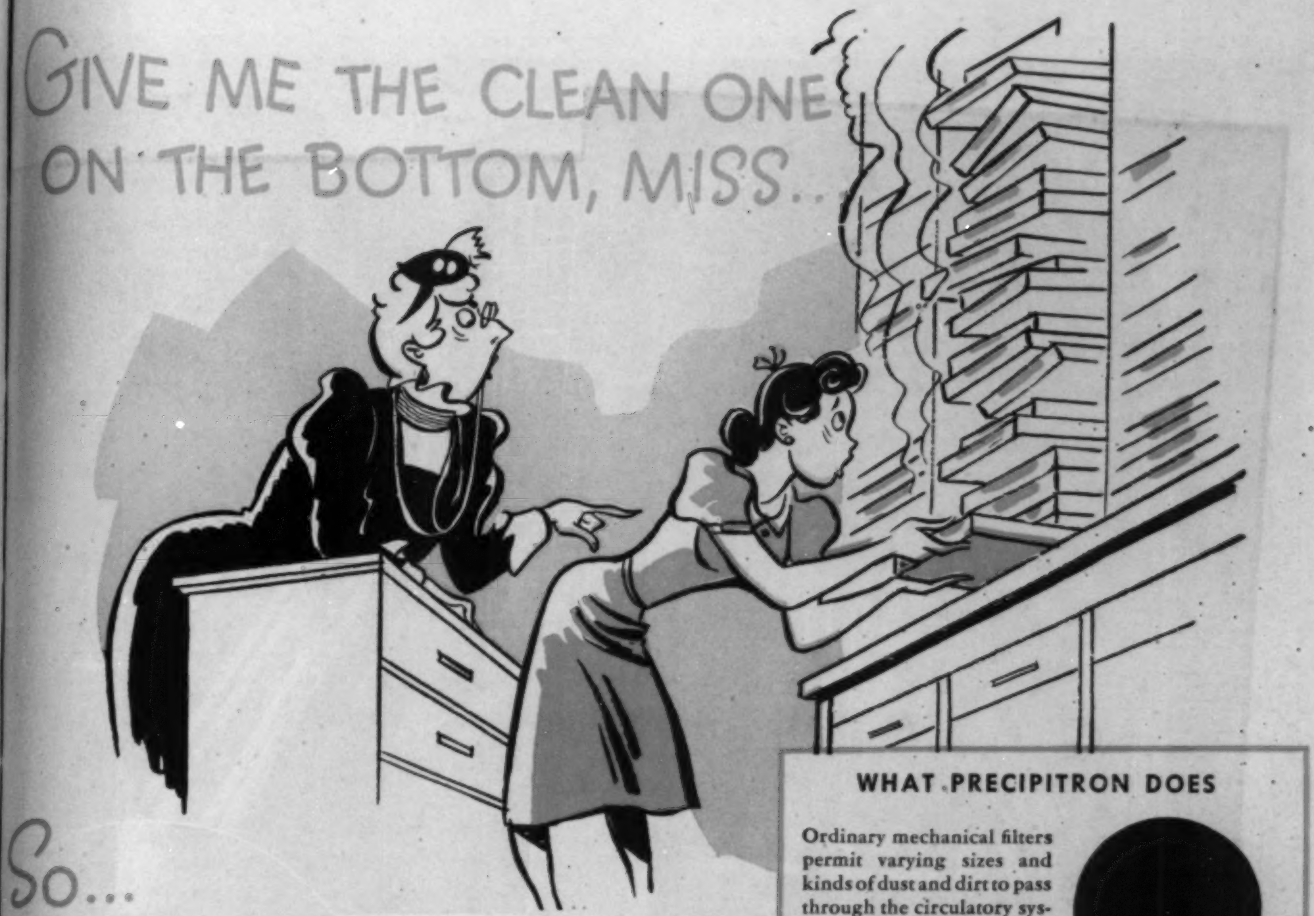


Here's what we'd want to know about each source of supply.	Here are the answers as they apply to Connecticut Telephone & Electric Div.
● *Are they experienced?*	Connecticut Telephone & Electric is one of the oldest names in communications . . . a pioneer since the early days of the telephone.
● *Are Hospital Systems a principal product, or just a sideline?*	A principal product for many years.
● *Are they abreast of the times?*	As prime contractors for Signal Corps and Air Corps communications, C.T. & E. engineers are closely associated with every improvement in their field. None will be overlooked in our post-war hospital equipment.
● *Who uses their equipment?*	Over 600 leading hospitals use C.T. & E. systems. We will gladly supply their names.
● *Is their line complete?*	For details, write for Bulletin 102, describing the C.T. & E. Hospital line. Hospital executives and their architects will be particularly interested in CONNECTACALL two-way nurse-patient systems, Doctors' Registry and Paging Systems, and Special Interior Circuits.
● *Can they help us with modernization as well as new construction?*	Yes. Hundreds of C.T. & E. systems have been installed in existing hospital buildings.
● *Can they give us authoritative engineering help?*	C. T. & E. Advisory Planning Service is famous for its extensive practical assistance. We invite you to sample it without obligation. Write today.

CONNECTICUT TELEPHONE & ELECTRIC DIVISION

GREAT AMERICAN INDUSTRIES, INC.

MERIDEN, CONN.


GIVE ME THE CLEAN ONE ON THE BOTTOM, MISS...

So...

turnover works *in reverse?*

Customers are notoriously choosey people. They're downright stubborn when it comes to accepting soiled merchandise at regular, *unsoiled* prices. You can't blame them for picking from the ***bottom of the pile*** ... merchandise which has been protected against the settling of air-borne dust and dirt!

However, a lot of the country's best stores have solved this problem with Westinghouse Precipitron*. While periodic dry dusting or vacuum cleaning only succeeds in churning the dust and setting it in motion to re-settle again, Precipitron *collects* it.

Precipitron sets an electronic trap for air-borne particles—it removes more than 90% of all foreign particles in the air—and operates 5 to 10 times more efficiently than mechanical filters. In many commercial businesses, in industries and many manufacturing operations — wherever clean air is important—Precipitron performs effectively and economically.

You can easily find out more about this remarkable Westinghouse development by calling any Westinghouse Office. Or write Westinghouse, P. O. Box 868, Pittsburgh, Pa.

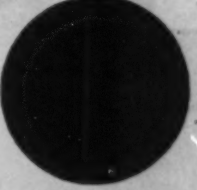
WHAT PRECIPITRON DOES

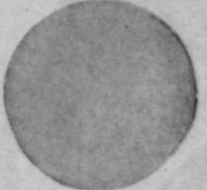
Ordinary mechanical filters permit varying sizes and kinds of dust and dirt to pass through the circulatory system—but, PRECIPITRON electrostatically cleans air, even eliminating tobacco smoke particles!

The results of the "Blackness Test," shown at right, indicates clearly what PRECIPITRON can do. Here are actual photographs of the test — where 2500 cubic feet of air, in each instance, were drawn through a cloth area for a 60 minute period!

The effectiveness of PRECIPITRON, demonstrated here, will save the loss of many thousands of dollars resulting each year from damage by air-borne dust and dirt in the home, factory and store.

Uncleaned Air


Mechanically Cleaned Air


Electronically Cleaned Air

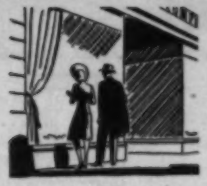
Westinghouse PRECIPITRON

PLANTS IN 25 CITIES... OFFICES EVERYWHERE

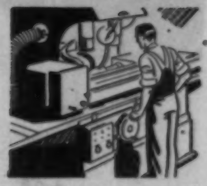
THE COSTLY NUISANCE OF DUST BANISHED BY PRECIPITRON, FROM...

Homes, Hotels and Apartment Buildings

Laboratories and Hospitals


Retail Stores, Banks and Office Buildings

Theatres, Restaurants and Night Clubs


Mills, Factories and Machine Shops

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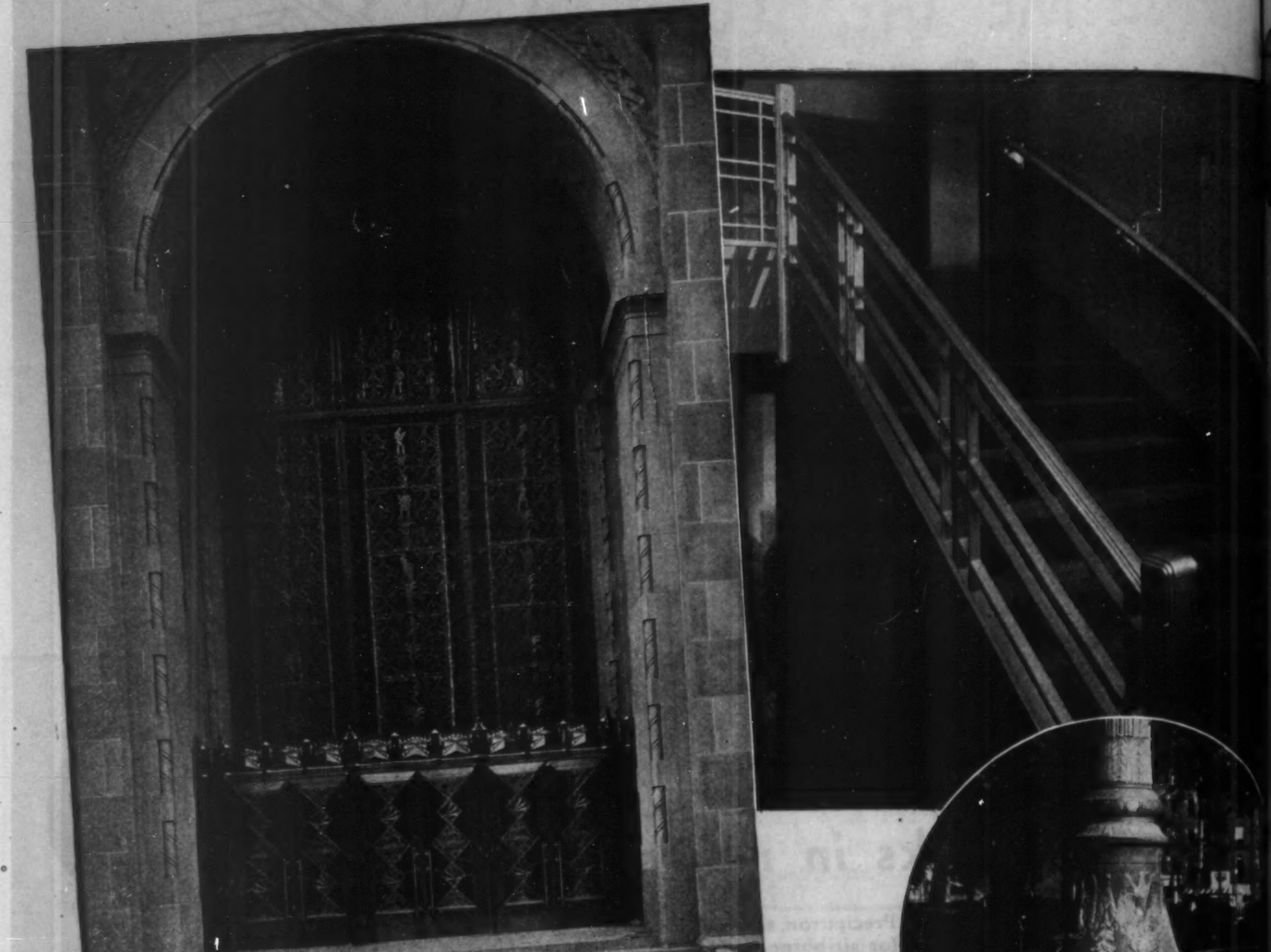
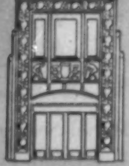
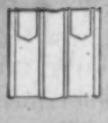


STAIRS

DECORATIVE GRILLES



ENTRANCE DOORWAY



SPANDRELS

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ARCHITECTURAL METALS

can be fabricated to meet any requirement

Because of their extreme versatility, architectural metals lend themselves to architects' thinking. They can be used in the way you want—for what you want. They can be shaped and fabricated to your own ideas.

As you design tomorrow's buildings—whether they be large or small, commercial or residential—consider the many ways architectural metals can be used for practical, utilitarian purposes as well as for ornamentation.

Use them to give extra strength or protection in stairs, railings, door frames, windows, and hundreds of other building items. Use them, too, in the entrance, for store fronts, marquees, grilles, and all types of exterior and interior decorations.

Architectural metals, both ferrous and non-ferrous will be available for immediate use again as soon as building restrictions are lifted. Include them in your plans now. For a Directory of Leading Architectural Metal Fabricators who are anxious to serve you, write to Dept. **R-6.**

NATIONAL ASSOCIATION OF

ORNAMENTAL METAL MANUFACTURERS

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ON-FERROUS WINDOWS

FLAGPOLE BASE

STORE FRONTS AND MARQUEES

FIXTURES

HAND RAILINGS

we named him nubun

HE'S HEADED FOR BIG THINGS IN THE ELECTRICAL WORLD

Right on the threshold of electricity's most promising era comes NUBUN—a revolutionary development in wiring insulation.

Scientists of U. S. Rubber Company fathered this newcomer . . . to provide better, safer wiring for countless new electrical installations . . . in homes and factories, on farms, in communications services.

Research, starting with the rubber molecule itself, led to a remarkable new buna rubber compound and a unique method of applying it through a process of dipping and drying, followed by vulcanization.

As a result Nubun permits perfect centering of the wire, a much smaller over-all diameter and provides an insulating sheath that is flexible, moisture-resistant, tough.

Watch this lusty baby grow. You'll be hearing a lot about Nubun, and his success in the busy peaceful days ahead.

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A New Insulation for

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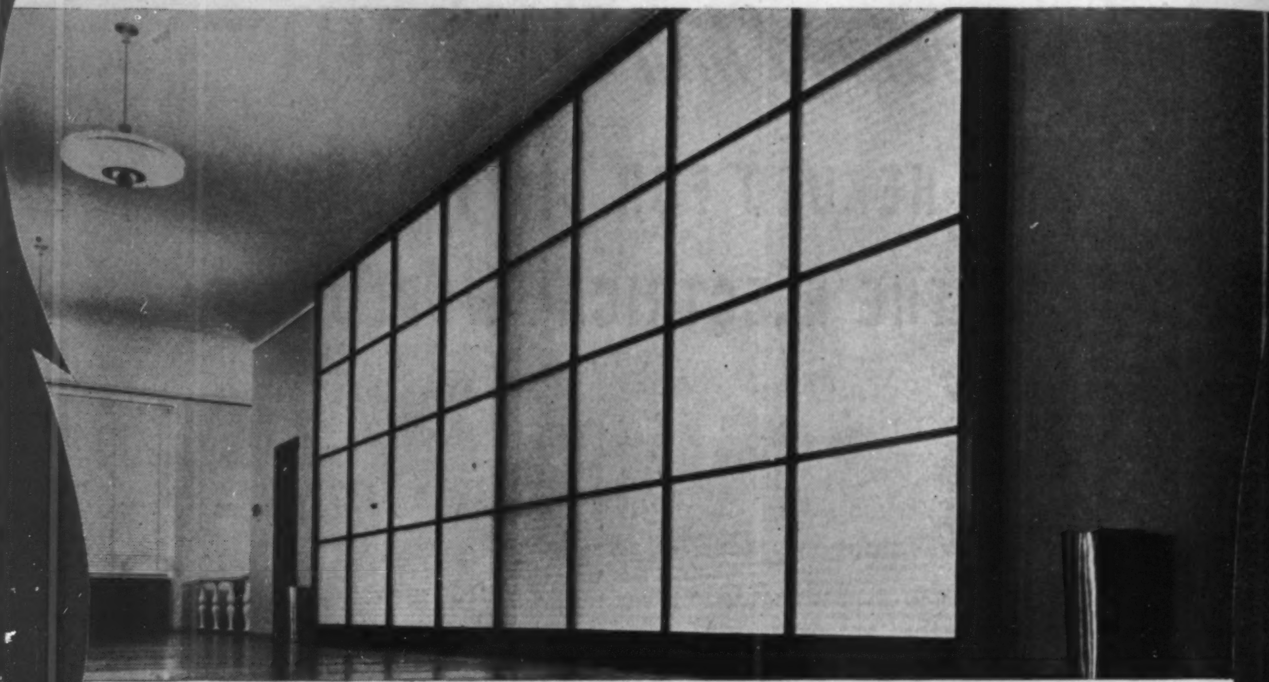
Serving Through Science

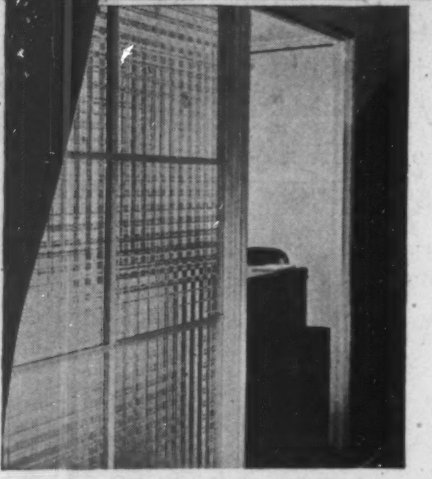
US

UNITED STATES RUBBER COMPANY

1230 Sixth Avenue, Rockefeller Center, New York 20, N. Y. • *In Canada:* Dominion Rubber Company, Ltd.

COMBINE BORROWED LIGHT AND BEAUTY WITH BLUE RIDGE *Decorative Glass*





This smart appearing Doublex screen, at the left, was personally selected by an architect for his own office.

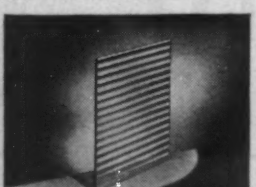
This inner office wall "borrows outside daylight" with Blue Ridge Satinol finished Louvrex.

Architects and decorators, searching for light-transmitting wall materials that add beauty and sparkle to interiors, will be interested in the wide variety of Blue Ridge Decorative Glasses. Approximately 20 patterns, each with highly individualized surface contours and light-borrowing qualities, are available in the Blue Ridge line which is sold by Libbey·Owens·Ford through leading glass distributors. These distinctive patterned glasses, made by the Blue Ridge Glass Corp. of Kingsport, Tenn., may be had in plain or Satinol finish . . . semi-transparent or obscure . . . and in flat glass form can be Securitized (heat-tempered) in flat glass for greater strength. Whatever your interior glass problems may be, be sure to consider the added beauty and distinction of Blue Ridge Decorative Glasses. Blue Ridge Sales Division, Libbey·Owens·Ford Glass Company, 8165 Nicholas Building, Toledo 3, Ohio.

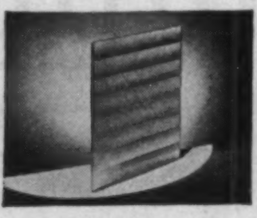
"Design it with one of the 5 EX's"

LOUVREX

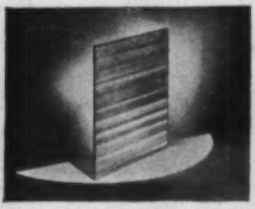
LINEX



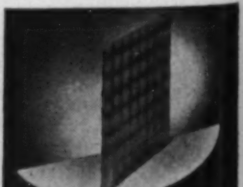
FLUTEX



STYLEX



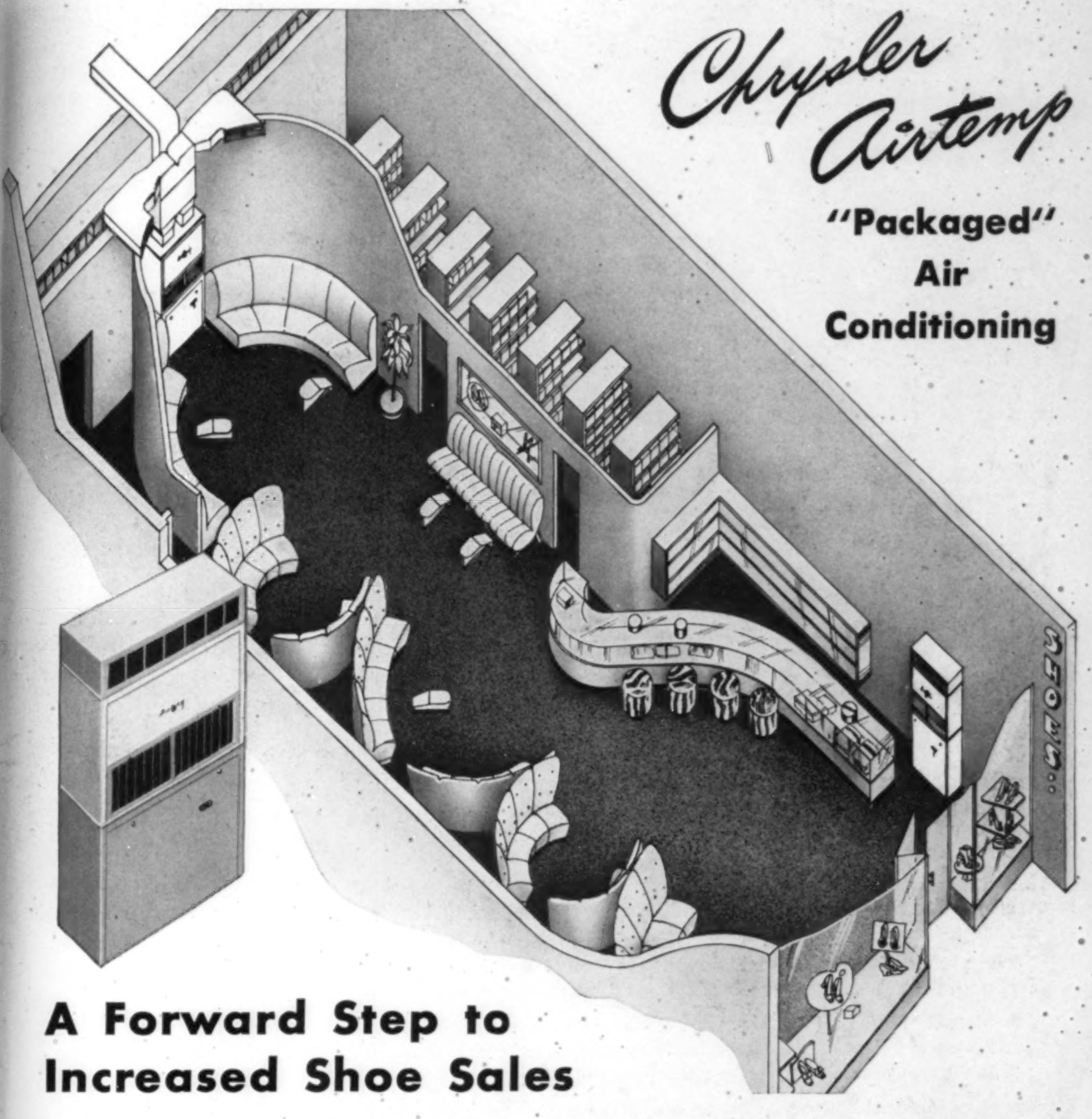
DOUBLEX



L O F

BLUE RIDGE *Decorative* GLASS

FOR SOFT, DIFFUSED LIGHT · SMART DECORATION · COMPLETE PRIVACY



Chrysler Airtemp

"Packaged"
Air
Conditioning

A Forward Step to Increased Shoe Sales

Any step that increases sales is a step in the right direction. That's why more and more shoe retailers are including air conditioning in their modernization and expansion plans. Cool shopping comfort insures proper fitting—meaning satisfied customers who return to buy again and again. "Packaged" Air Conditioning, pioneered by Chrysler Airtemp, provides clean, cool, properly dehumidified and gently circulated air to all areas throughout the store. Flexible and easy to install, these dependable, trouble-free and time-tested Chrysler Airtemp units, with the hermetically sealed compressors, can be used singly or in multiple. Chrysler Airtemp air conditioners can be installed with or without a duct system. Specify "packaged" cooling to help your clients add summer profits. • Airtemp Division of Chrysler Corporation, Dayton 1, Ohio.

Invest in Your Future—Buy War Bonds! You'll enjoy "The Music of Morton Gould," Thursdays, CBS., 9 p.m., E.W.T.

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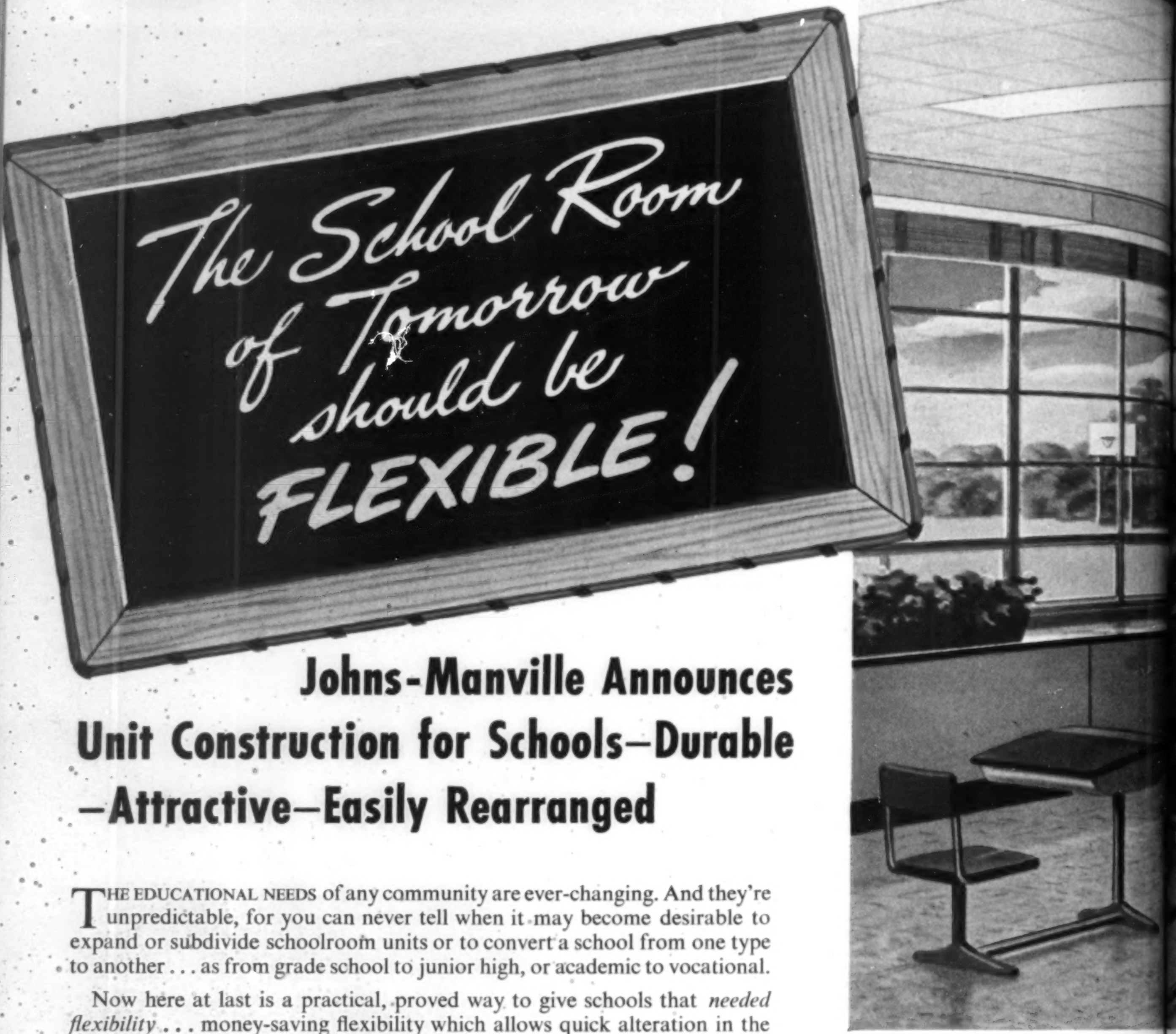
HEATING • COOLING • REFRIGERATION



Johns-Manville Announces Unit Construction for Schools—Durable —Attractive—Easily Rearranged

THE EDUCATIONAL NEEDS of any community are ever-changing. And they're unpredictable, for you can never tell when it may become desirable to expand or subdivide schoolroom units or to convert a school from one type to another . . . as from grade school to junior high, or academic to vocational.

Now here at last is a practical, proved way to give schools that *needed flexibility* . . . money-saving flexibility which allows quick alteration in the size, arrangement, or type of schoolrooms!

Three Johns-Manville materials are united to form Unit Construction for Schools—all under one specification . . . one manufacturer's responsibility:

1. **Movable Walls** . . . 100% salvageable, quickly erected or relocated.
2. **Acoustical Ceilings** . . . eliminate distracting noise, increase class efficiency.
3. **Resilient Floors** . . . quiet, easy to walk on, easy to clean.

But what if a school is never altered or converted? Even so, these J-M materials are an integral part of the structure and give long-enduring satisfaction in many *other* ways. For instance, all the constituent parts are durable . . . hard to mar . . . shock-proof . . . easier and more economical to maintain. And their attractiveness inspires pride . . . contributes an atmosphere of cheerfulness and appealing beauty.

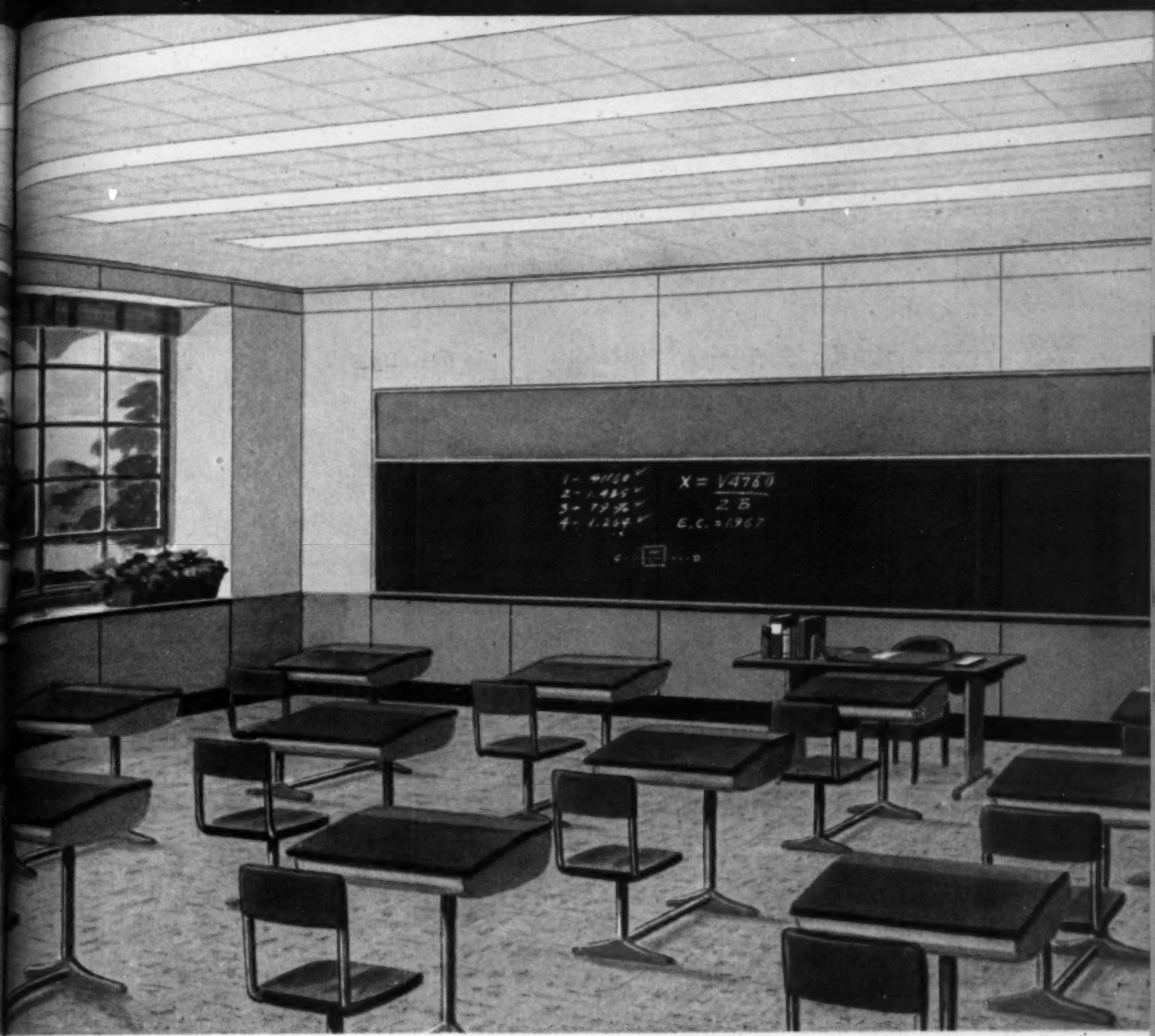
Write for further information and details on this important advance in school construction. Address: Johns-Manville, 22 East 40th St., New York 16, N. Y.

This attractive, modern classroom is typical of J-M Unit Construction for Schools. It provides not only flexibility, but quietness and beauty conducive to classroom efficiency. Note the clean-cut, projection-free Transite Walls, the Acoustical Ceiling with fluorescent lighting, the colorful, easy-to-clean Asphalt Tile Floor.

JOHNS-MANVILLE
JM
PRODUCTS

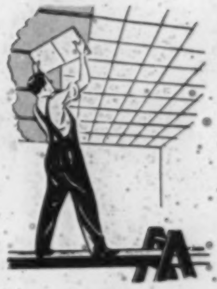
Johns-Manville Unit Construction for Schools

WALLS . . . CEILINGS . . . FLOORS



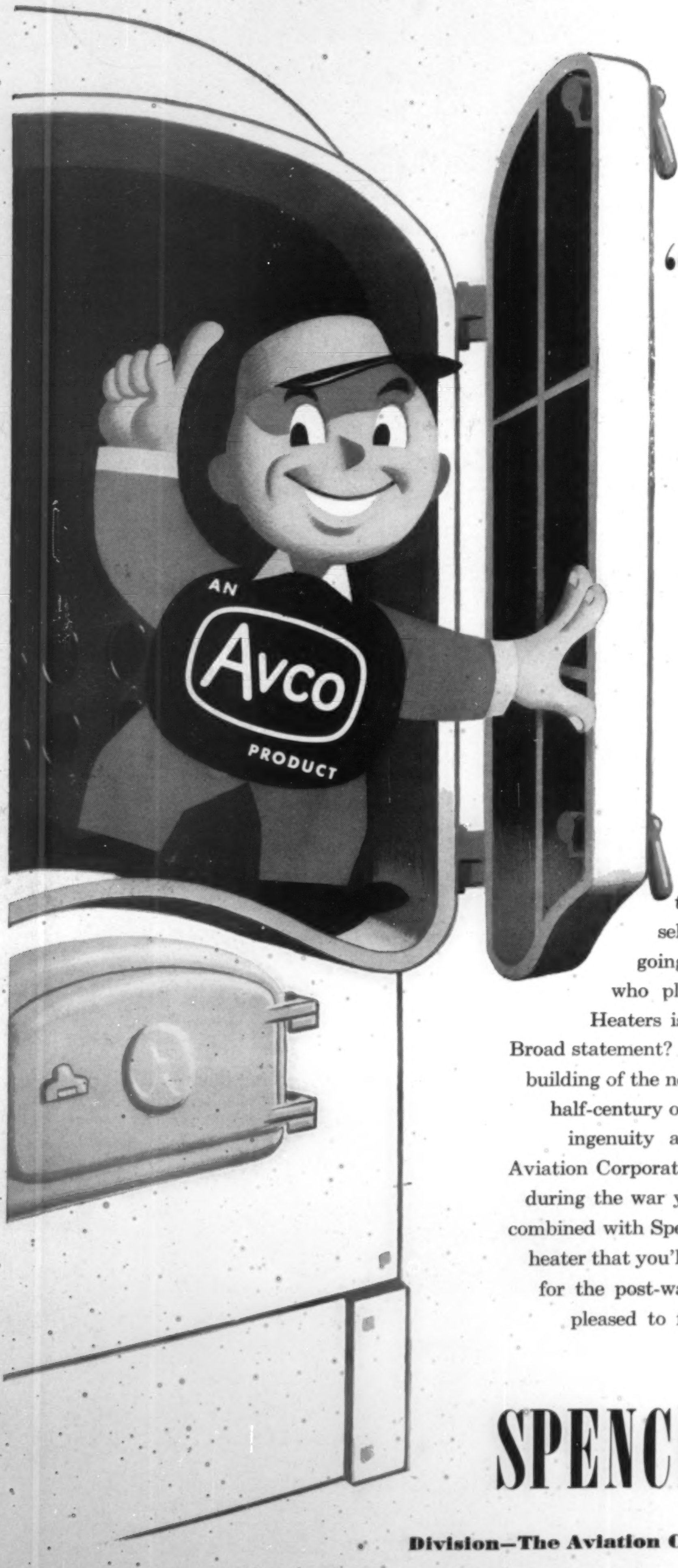
Here are the three elements combined to form UNIT CONSTRUCTION FOR SCHOOLS:

Movable Walls—The keystone of flexibility in Unit Construction is the J-M Transite Wall. It can be disassembled and relocated as educational needs require. One-unit rooms, for instance, can be speedily converted into two-unit rooms, or vice versa. Made of fireproof asbestos-cement, practically indestructible materials, the movable panels are used not only to form the rigid, double-faced partitions 4″ in thickness, but also to finish the interior of the outside walls as well.



Acoustical Ceilings—Important factor in helping to overcome the handicap of distracting noise, Johns-Manville Acoustical Ceilings are beneficial both to teacher and student alike. They give the desired degree of quiet for effective teaching, eliminate frequent causes of nervousness, and are proved aids to concentration. An exclusive J-M patented construction system permits interchangeability of flush-type fluorescent lighting and acoustical ceiling units.

Colorful, Resilient Floors—J-M Asphalt Tile Flooring completes the Unit Construction System. Made of asbestos and asphalt, the units will withstand the kind of hard wear and abuse that must be expected in any school building. Not only are they durable, J-M Asphalt Tile Floors are pleasantly comfortable and quiet underfoot, thereby reducing the disturbing effects of noisy footsteps in classrooms, corridors, gymnasiums, etc. Individual units permit easy alterations or repairs. Made in a wide variety of plain and marbleized colors.



"We've got the answer when the heat's turned on!"

You know . . . we know . . . that the heat of post-war competition is going to be *something!* Now is none too soon to set your sights on solid selling points for the homes you are going to build. We predict that the man who plans homes equipped with Spencer Heaters is going to have a happy time of it. Broad statement? Not when you consider that into the building of the new Spencer Heater line will go over a half-century of heater experience *combined with* the ingenuity and engineering knowledge of The Aviation Corporation . . . skills developed and proved during the war years. New economy and utility . . . combined with Spencer dependability, will bring you a heater that you'll want to include in the specifications for the post-war homes you're planning. We'll be pleased to furnish you with more information.

SPENCER HEATER

Division—The Aviation Corporation, Williamsport, Pa.

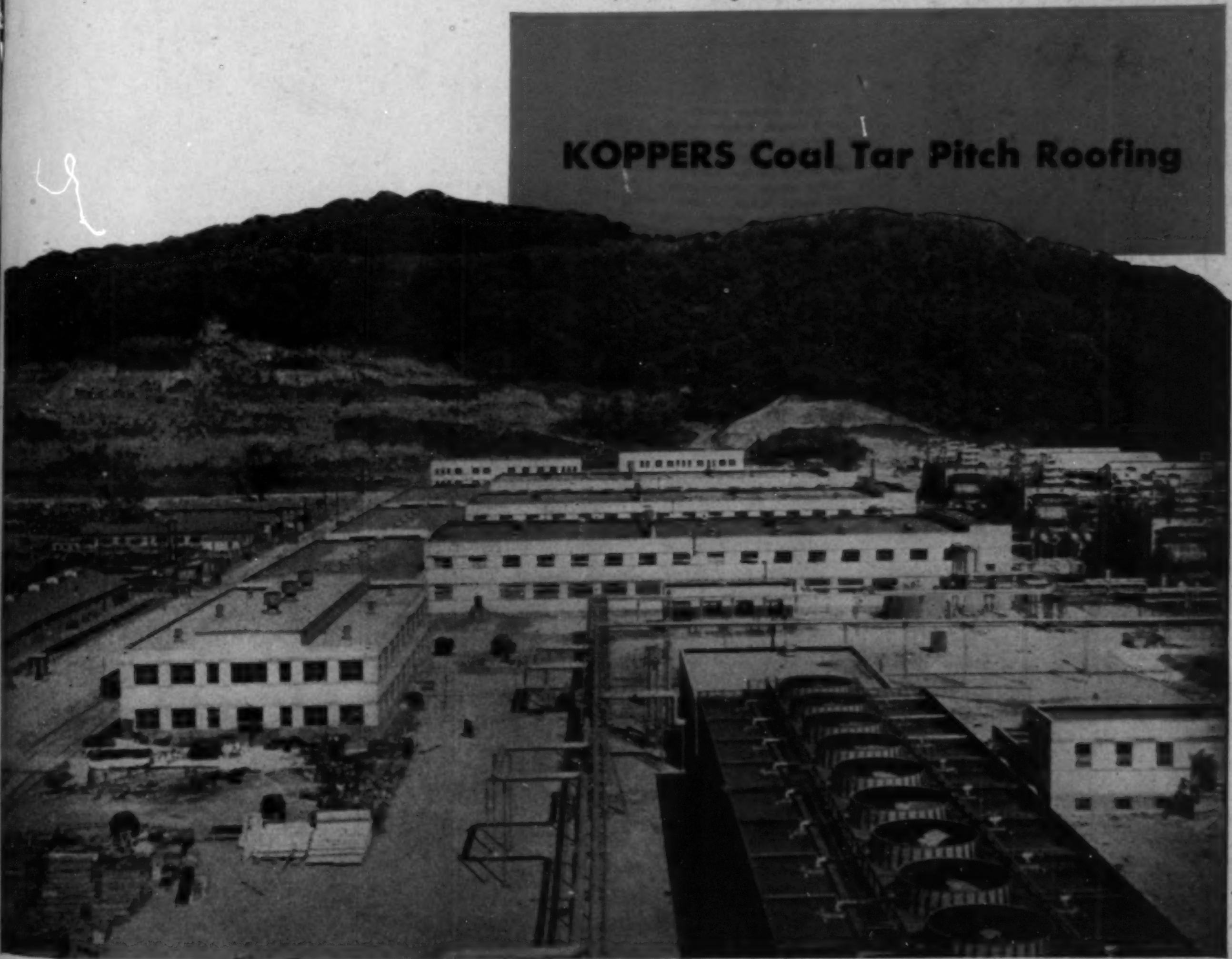
"Was the roof of tomorrow here yesterday?"

One of America's newest industries uses one of America's oldest roofings

This is one of the new synthetic rubber plants, a unit in America's newest industry. On its many buildings are roofs built of Koppers Coal Tar Pitch and Tarred Felt . . . the type of roofing that was setting up records for durability away back before synthetic rubber was a practical possibility.

This is only one of the big wartime plants on which Koppers Roofing was used. Individual plants with as much as 60 acres under one roof have been covered with Koppers Roofing.

The war brought immense construction activity and resulted in many revolutionary new ideas in construction, but through it all no one was able to find any built-up roofing which is better than the good, old reliable coal tar pitch and felt.—Koppers Company, Inc., Tar & Chemical Division, Pittsburgh 19, Pa.

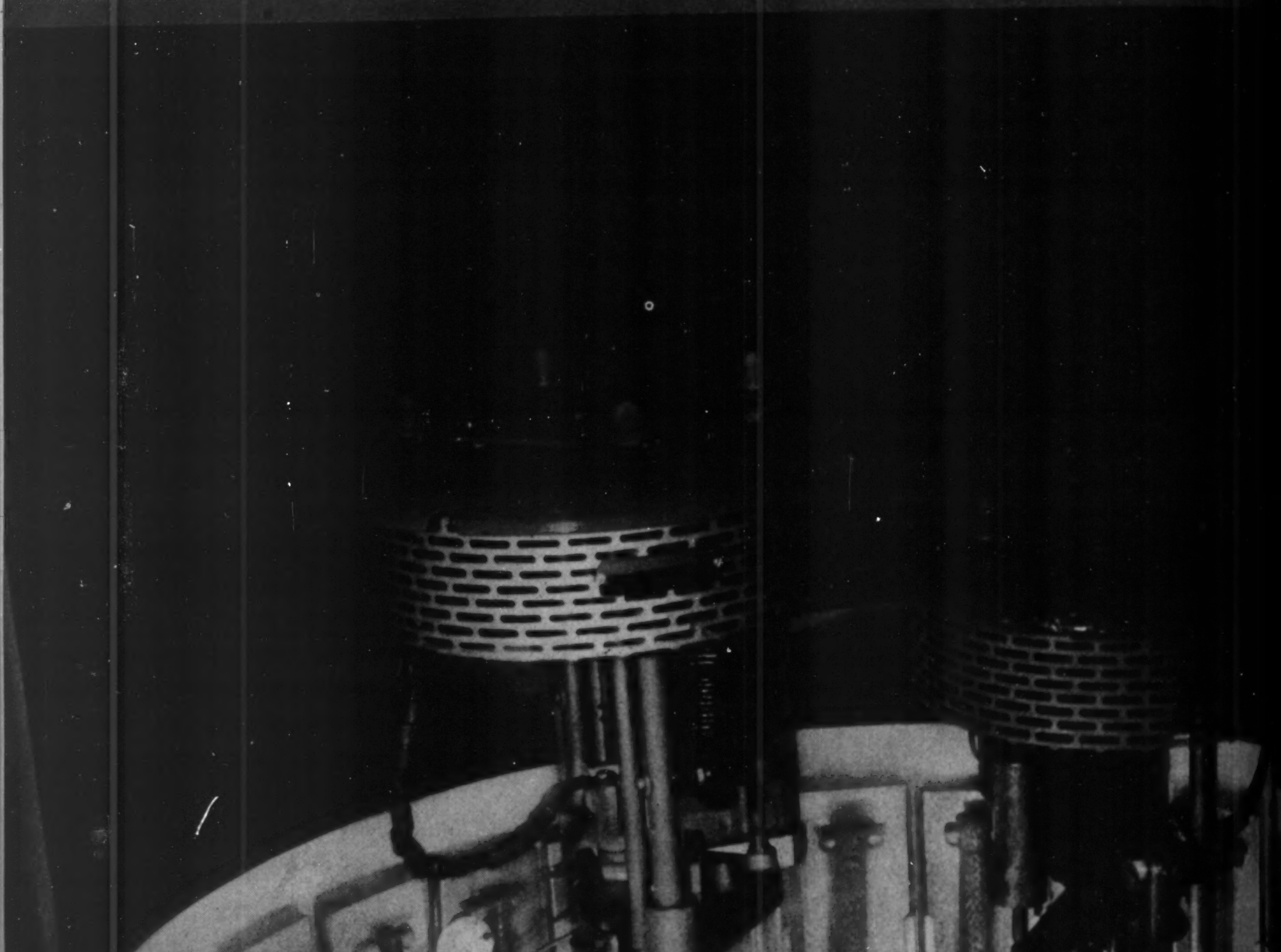


KOPPERS Coal Tar Pitch Roofing

Buy War Bonds—and keep them!

KOPPERS THE INDUSTRY THAT SERVES ALL INDUSTRY

LONGEVITY



Here, the moisture-permeability of a synthetic is tested in the "Weatherometer", a device which accurately measures the relative time-resistance of various insulating materials to the most damaging elements of weather:—ultra-violet rays, wind, moisture.

Y OF PRODUCT

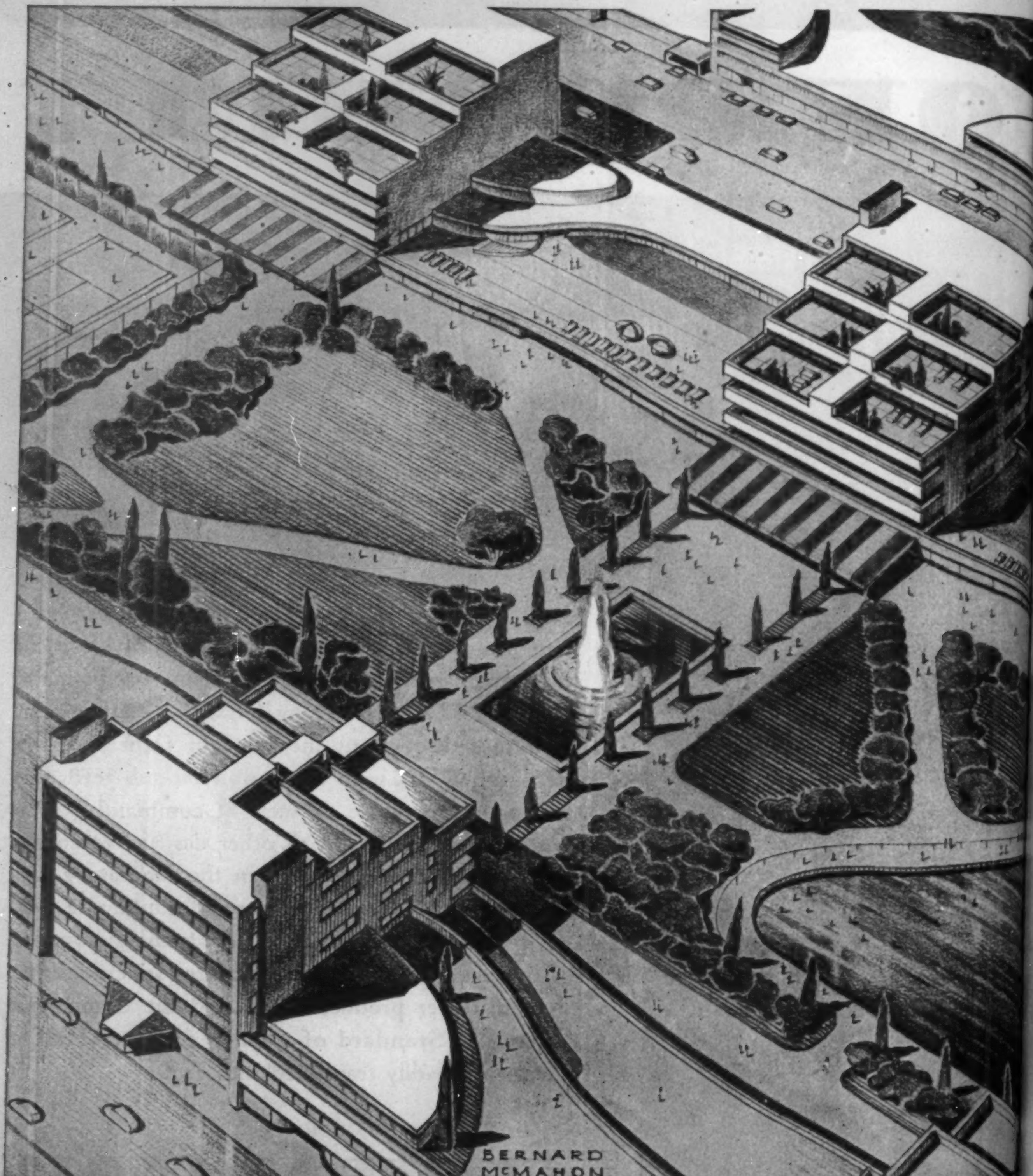
Accelerated laboratory "punishment," plus decades of test-yard exposure, cross-check each creative advance through General Cable Research.

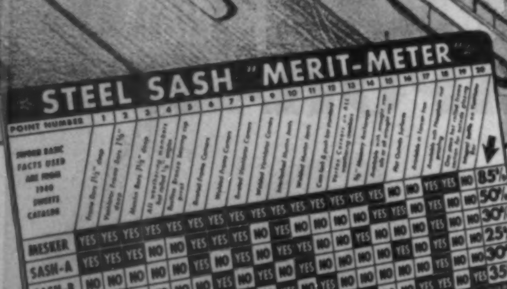
Can the inevitable slow deterioration of electrical wires and cables through age and exposure be made 50% slower? Active seeking for such an attainment continues throughout the years of General Cable Research. Now, with ultra-modern sub-zero and tropical temperature cabinets at command — with salt air, acid earth and all other destructive conditions accurately reproduced in the laboratory and its auxiliary test-yard, the search for ultimate longevity strides constantly ahead. From the discoveries of methods such as this are better specifications written, better products born, and the Company's legend "A Standard of Quality for over Half a Century" steadily translated into fact.

GENERAL CABLE CORPORATION

GENERAL CABLE

Manufacturers of Bare and Insulated Wires and Cables for Every Electrical Purpose





STEEL SASH "MERIT-METER"

POINT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
SWORN BASIC FACTS USED ARE FROM 1940 SWEETS CATALOG	Frame Bars 1½" deep	Ventilator Frame Bars 1½" deep	Muntin Bars 1½" deep	[illegible]	[illegible]	Riveted Frame Corners	Welded Frame Corners	Riveted Ventilator Corners	Welded Ventilator Corners	Interlocked Muntin Bars	Welded Muntin Bars	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	↓
MESKER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	85%
SASH-A	YES	YES	YES	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	NO	NO	50%
SASH-B	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	YES	NO	NO	YES	NO	NO	NO	YES	NO	NO	30%
SASH-C	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	NO	YES	NO	YES	NO	NO	25%
SASH-D	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO	30%
SASH-E	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	YES	NO	NO	YES	YES	NO	YES	35%

• **Sworn facts from Sweet's Catalog have time and time again proved the quality supremacy of Mesker Steel Windows. Quality the architect can depend on.**

**If you have not as y
received your copy of th
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Apartment Windows, write fo
a copy TODAY. There is n
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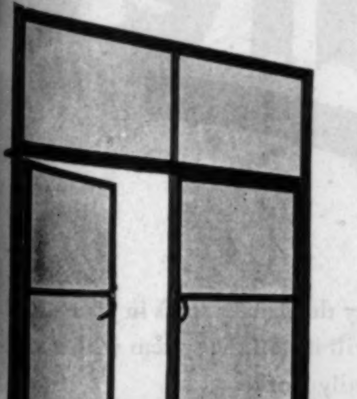
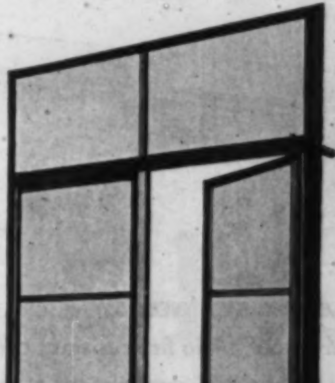
Specify MESKER STEEL WINDOWS FOR YOUR *NEW* APARTMENTS

Small duplex, large community project ... no matter what size unit you're designing ... there are Mesker Steel Windows for all your apartments. More than just a decorative complement to your architectural design, these windows have important features of design and function that appeal to tennants, enhance rental possibilities. For example, unlike old fashioned, bulky-constructed double hung wood windows that obscure the light ... thin membered Mesker Steel Windows admit 30% more daylight, assure attractive interiors. There's no swelling, sticking, broken sash cords or sliding friction to overcome with Mesker Steel Windows. Simple crank operation makes them open at a flick of the finger, allowing 100% draftless ventilation. Easily installed, easily storm sashed and easily cleaned, Mesker Steel Windows provide inside screening, eliminating yearly storing, cleaning and painting. All of which is why *you*, like leading architects all over America, will want to specify Mesker Steel Windows for all your apartment buildings.



Mesker Windows For Apartment Buildings

The standard sizes of Mesker Steel Casements (Series 300) can be used singly or in combination to achieve almost any size window opening required to suit any particular detail. For large picture windows, stationary (non ventilator) sizes are available in all widths and heights. The window on the left with a hopper vent is a special housing window for large scale projects only. The window to the right will be available for all types of apartment buildings, large or small.



Mesker

STEEL WINDOWS

MESKER BROTHERS • 428 SOUTH 7th STREET (2) SAINT LOUIS

CAN YOU SAY YES . . . WITHOUT RESERVATION . . . TO THIS QUESTION?

Are they

- completely protected

- continuously protected

- dependably protected

against fire?

THERE ARE FIVE SCHOOL FIRES EVERY DAY, some in buildings considered "fireproof". No fire-resistant construction can prevent the combustible contents of a building from burning. Waste will accumulate. Supplies must be stored. Heating and lighting equipment does fail. Human negligence can't be entirely eliminated.

ONLY AUTOMATIC SPRINKLER FIRE PROTECTION safeguards the lives of school children *anywhere* in the building, at *all times,* and *automatically* – without dependence on uncertain human vigilance. A Grinnell Automatic Sprinkler System stands ready unfailingly to stop fire at its source, often before it is discovered.

YOUR RESPONSIBILITY for the *dependable* protection of young lives and valuable property can be met fully with a Grinnell Automatic Sprinkler System. A Grinnell Engineer will help you survey the danger spots in your school. Expert erection crews will install the system with a minimum of disruption to daily work.

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COMPLETE INFORMATION is available from a Grinnell Office near you . . . there's no obligation. Grinnell Company, Inc., Executive Offices, Providence 1, Rhode Island.

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AUTOMATIC SPRINKLER FIRE PROTECTION

DEVOTED TO THE DEVELOPMENT OF AUTOMATIC FIRE PROTECTION SINCE 1873 . . . PROTECTING OVER FIFTY BILLION DOLLARS WORTH OF THE WORLD'S PROPERTY

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Confidence

PERHAPS the first step in undertaking a new project is to insure confidence—in the idea *and* in the tools employed. No more needed tool is there than the pencil which translates ideas into working form and thence into reality.

VENUS Drawing Pencils are engineered to give you drafting perfection without failure: accurately *graded* to assure uniformity in all 17 degrees . . . *strong* in performance . . . *smooth* and *clean* in action.

Put VENUS to the test on your drawing board. Send us a postcard or a note for two free samples. Specify degrees wanted.

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AMERICAN LEAD PENCIL COMPANY, HOBOKEN, NEW JERSEY

"Oh For A Seat In Some Poetic Nook"

Leigh Hunt: 1784-1859

Poetic nooks are the least of our needs nowadays, world conditions being what they are, and we have little time for wistful longings such as that of our last-century bard.

However, there are seats *and* SEATS — one in particular being a marvel of modern craftsmanship. CHURCH MOL-TEX, for example, represents the ultimate in toilet-seat construction. Designed for severest industrial use, granite-strong molded plastic over a hardwood core makes it fireproof, impervious to accidentally spilled medicines and practically indestructible.

CHURCH MOL-TEX SEATS, in ebony black or permanent white, make better looking public washrooms. For the good will that is a client's natural reaction to attractiveness, ease of maintenance and economy, specify them in your industrial, institutional and public building installations.

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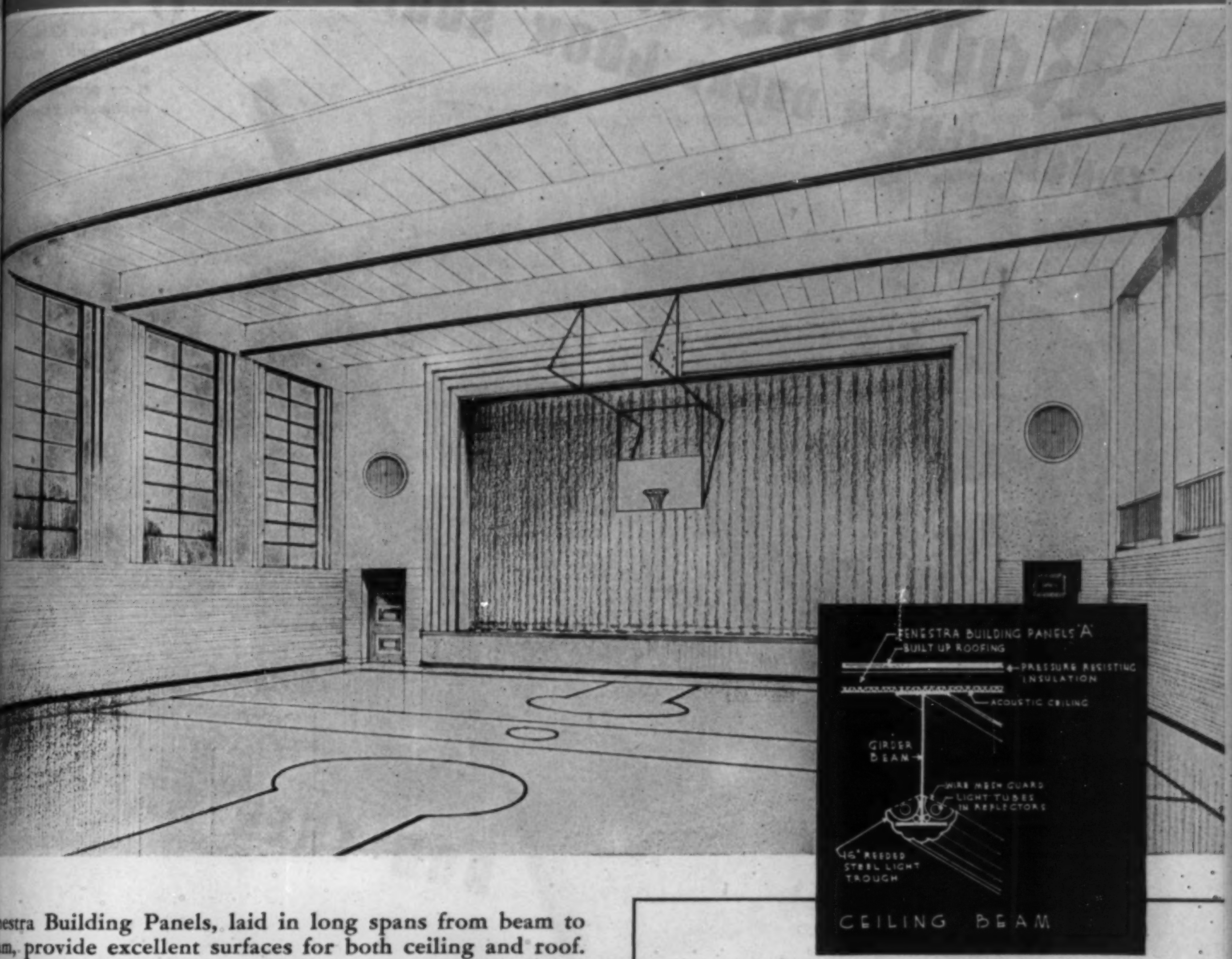
Division of American Radiator & Standard Sanitary corporation

CHURCH *Seats*

"THE BEST SEAT IN THE HOUSE"

New! COMBINATION ACOUSTICAL STEEL CEILING and ROOF


FENESTRA BUILDING PANELS "A"
BUILT UP ROOFING
PRESSURE RESISTING INSULATION
ACOUSTIC CEILING
GIRDER BEAM
WIRE MESH GUARD
LIGHT TUBES IN REFLECTORS
16" REEDED STEEL LIGHT TROUGH
CEILING BEAM

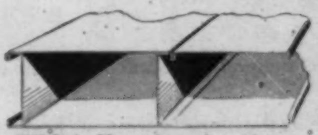
nestra Building Panels, laid in long spans from beam to am, provide excellent surfaces for both ceiling and roof. The top surface is ideal for application of whatever roofing terial you prefer. The under surface gives you a smooth, at appearing paneled ceiling—which requires no finishing her than a coat of paint. That means lower construction st—lower maintenance.

The under surface of the panels can be treated for acoustical fect, and the panel raceways filled with insulating materials. e channels in the sections provide excellent runways for sertion of wiring, pipes and ducts.

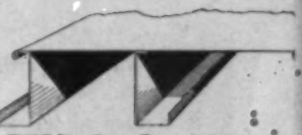
The panels are easy to lay—lock together for a tight fit. hey provide an attractive, durable, incombustible ceiling at is in keeping with finest architectural lines.

Fenestra Building Panels are not yet available, but you can corporate them in your plans with the expectancy that they ill be ready by construction time. Get the facts about them ow. Mail the coupon.

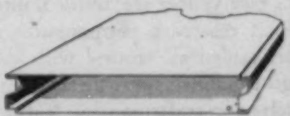
FOUR TYPES



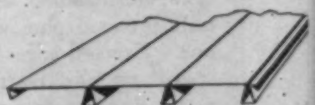
TYPE A. Two channels with top and bottom plate which, with service cover, form two-cell box beam.



TYPE B. One flat surface, two channel-type ribs. Flat side up or down, inside or outside.



TYPE C. Horizontally or vertically, for walls. Normally filled with insulation at the factory.



HOLORIB. Steel Roof Deck with triangular-shaped ribs 6" on centers, 1½" deep, for spans to 8'.

Standard width of Type A, B and C Panels, 16", in # 20 to # 10 gages. Holorib in # 20 and # 18 gages.

Fenestra

BUILDING PANELS FOR

ROOFS

WALLS

FLOORS

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Building Panels Division (*formerly Holorib Div.*)
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Detroit 11, Michigan

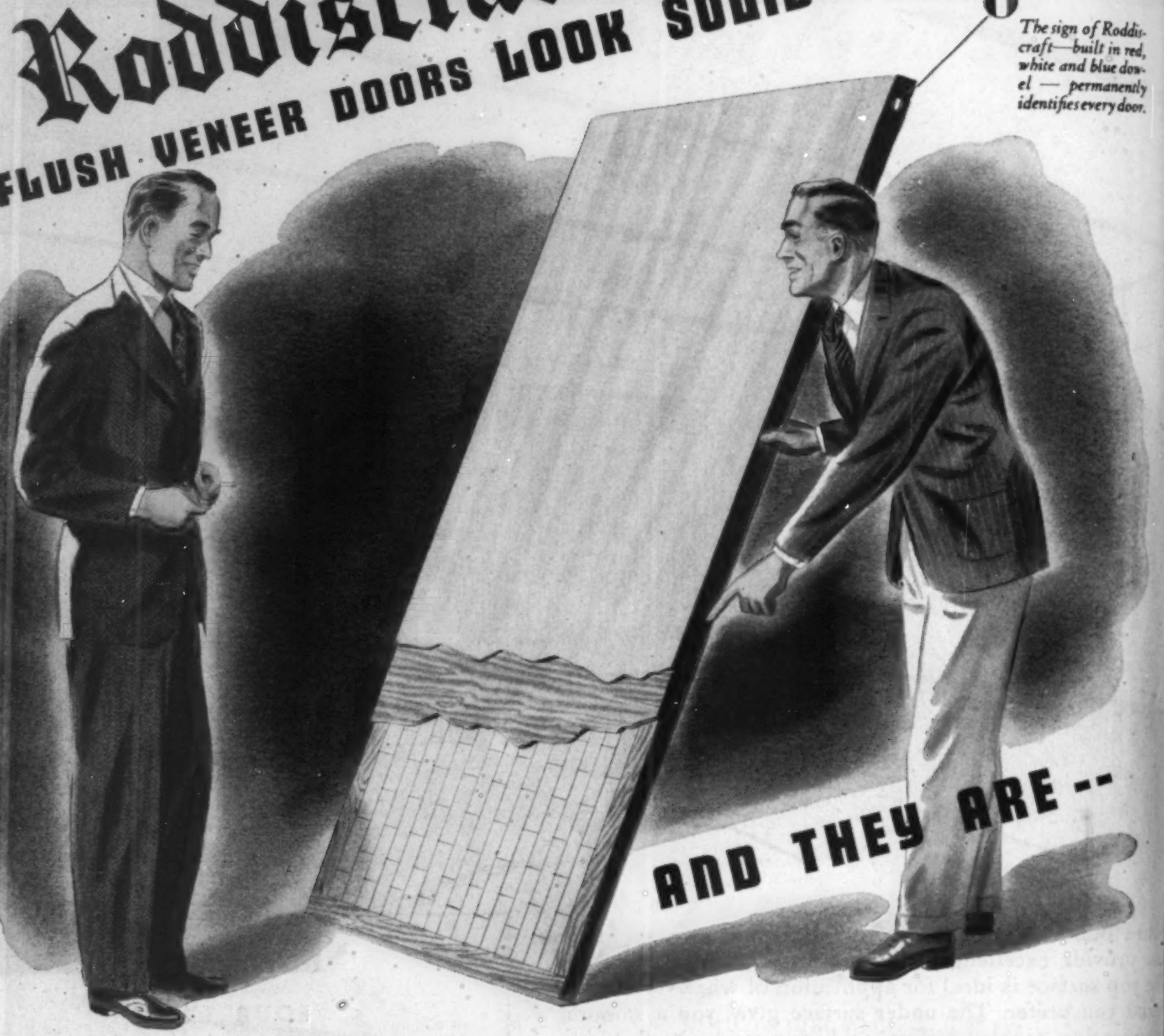
Please, send me, without obligation, information on Fenestra Building Panels.

Name______________________________

Company______________________________

Address______________________________

Roddiscraft FLUSH VENEER DOORS LOOK SOLID --



The sign of Roddiscraft—built in red, white and blue dowel — permanently identifies every door.

AND THEY ARE --

There's nothing artificial about a Roddiscraft flush door. It looks solid — and it is.

It is easy to tell the real thing. Swing a Roddiscraft door shut with a little force. The solid core absorbs the shock and sound. No reverberation — no drumming.

Core, crossbanding, and face veneer are welded into a solid block with aircraft plywood glue which creates a permanently water and moisture proof line. Exposed edges are sealed all around with hardwood strips — double-sealed top and bottom to allow for safe trimming. No other door can match Roddiscraft in such extra craftsmanship features. No detail is overlooked to make Roddiscraft doors the best by any measure.

Roddis backs every door made according to its standard construction with a guarantee bond. This bond reflects Roddis' more than half-a-century experience in door manufacture. We know our construction — our confidence in it is unlimited. We guarantee it — without qualification.

Roddiscraft

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CAMBRIDGE 39, MASS., 229 Vassar St.
CHICAGO 8, ILL., 1440 W. Cermak Rd.
CINCINNATI 2, OHIO, 457 E. Sixth St.
DALLAS, TEXAS, 2615 Latimer St.
KANSAS CITY 8, MISSOURI, 2729 Southwest Blvd.
LOUISVILLE 10, KENTUCKY, 1201-5 S. 15th St.
LONG ISLAND CITY, N. Y., Review and Greenpoint Ave.
MARSHFIELD, WISCONSIN
MILWAUKEE 8, WIS., 4601 W. State St.
NEW YORK CITY 18, NEW YORK, 515 W. 36th St.
SAN ANTONIO, TEXAS, 727 N. Cherry St.

DEALERS IN ALL PRINCIPAL CITIES

See Sweet's Architectural File for complete door line and specifications

Roddiscraft
Roddis Lumber & Veneer Co.
MARSHFIELD, WISCONSIN

FROM TIMBER TRACT
TO BUILDING SITE —
It's Roddis All the Way

New Beauty for Fireplaces

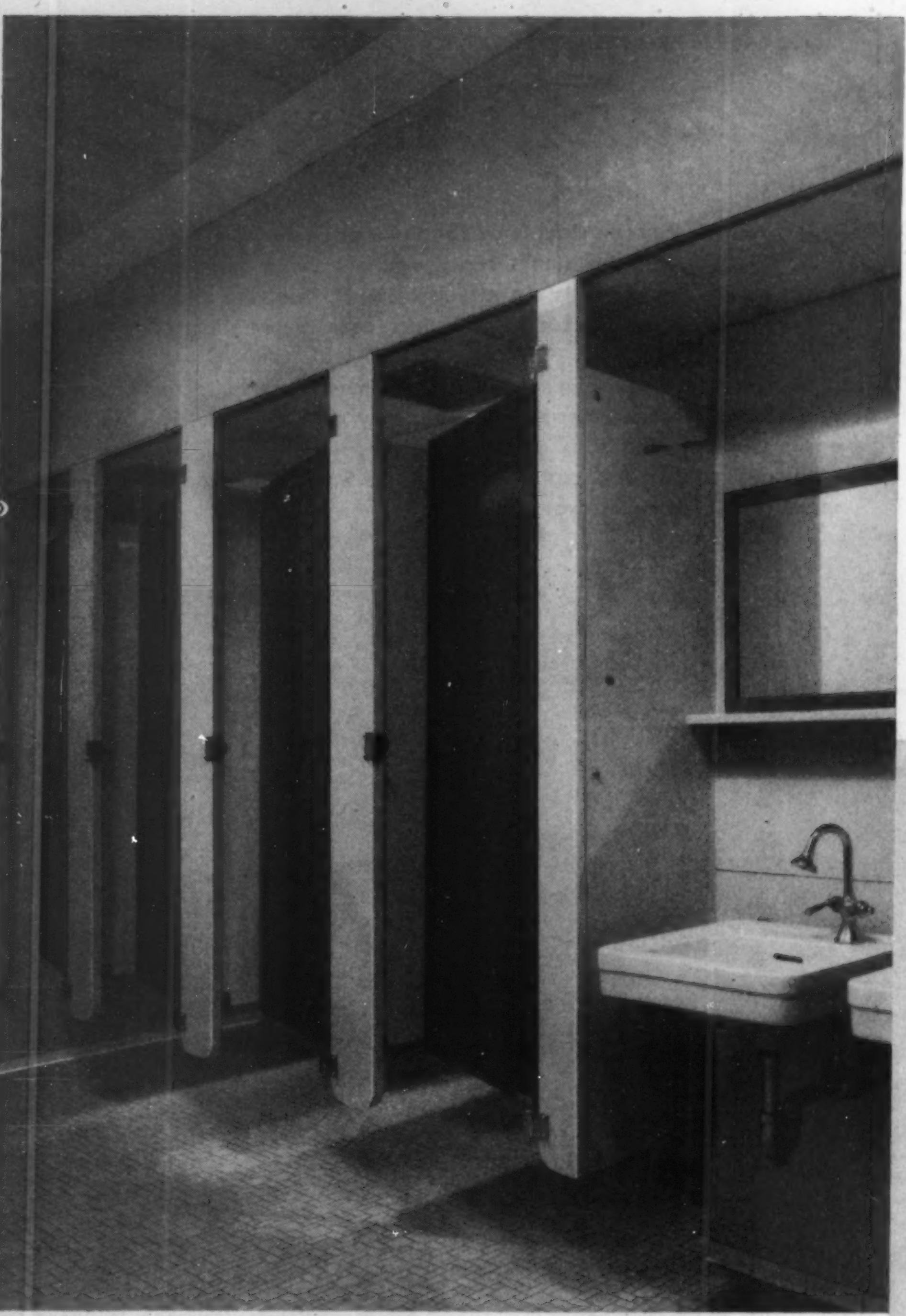
This unusual stainless steel-lined fireplace adds a note of beauty, where ordinarily is found only smoke-blackened brick. The gleaming surface is easily cleaned and resists the effects of heat. Also, the highly reflective surface of stainless steel materially increases the heating efficiency of the fireplace.

Stainless steel is used in many ways in homes, office buildings, hospitals, and other institutions, because it is not only attractive, but it is durable, easily cleaned, and rust- and corrosion-resistant as well. It has proved itself in numerous applications and will be included in more and more specifications after the war.

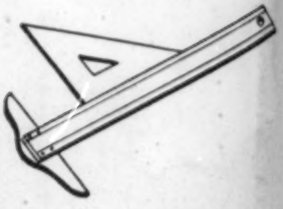
BUY UNITED STATES WAR BONDS AND STAMPS

ELECTROMET REVIEW

Other interesting uses of stainless steel are described in ELECTROMET REVIEW, published by ELECTRO METALLURGICAL COMPANY, the Unit of UNION CARBIDE AND CARBON CORPORATION that produces alloys for making steel. You can be put on the mailing list for ELECTROMET REVIEW by sending your name on your business letterhead to ELECTRO METALLURGICAL COMPANY, 30 East 42nd Street, New York 17, N. Y.

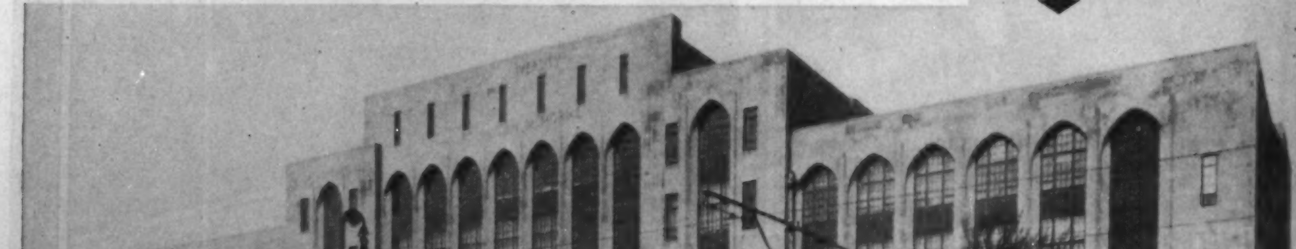


CARRARA STRUCTURAL GLASS offers a combination of polished beauty, permanence and sanitation which qualifies it exceptionally well for use in the washrooms of public buildings. It is impervious to moisture, chemicals, pencil marks. It is easily cleaned. In the interesting application shown, Carrara partitions and stiles are hung from ceiling and walls so that the floor area remains clear and unobstructed. *Architects: Hart, Freeland & Roberts.*



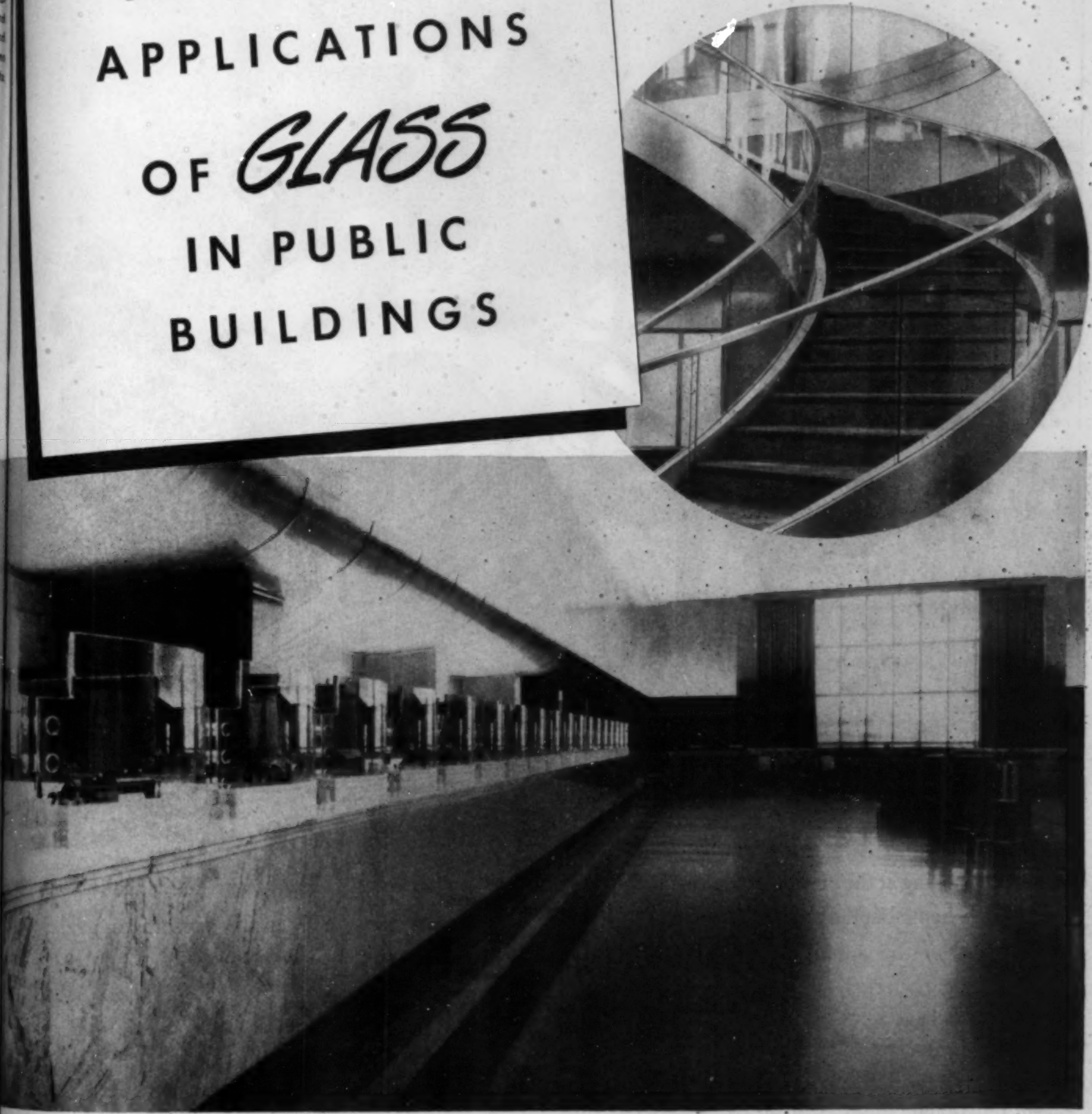
COMBINING DECORATIVE BEAUTY and practical usefulness. Pittsburgh Polished Plate Glass can serve a hundred purposes in public buildings. In this striking bank interior, heavy Plate Glass both bent and flat, is an important factor in creating a smart, business-like atmosphere. Note the large window at the rear. *Architect: Walter W. Ahlschlager.*

WHEN WINDOWS occupy such a large percentage of wall area, as in this University Building, it becomes especially important to specify a quality glass. Pennvernon Window Glass and Pittsburgh Polished Plate Glass are always dependable choices for glazing structures like this. *Architects: Cram & Ferguson.*



INTERESTING APPLICATIONS OF *GLASS* IN PUBLIC BUILDINGS

TRANSPARENT STAIR RAILS of Herculite Tempered Plate Glass offer new design possibilities, not only in public buildings, but in commercial and residential structures as well. Herculite Glass is tempered to give it many times the strength and impact resistance of normal Plate Glass. *Architects: Reinhard & Hofmeister and Harrison & Fouilhoux.*



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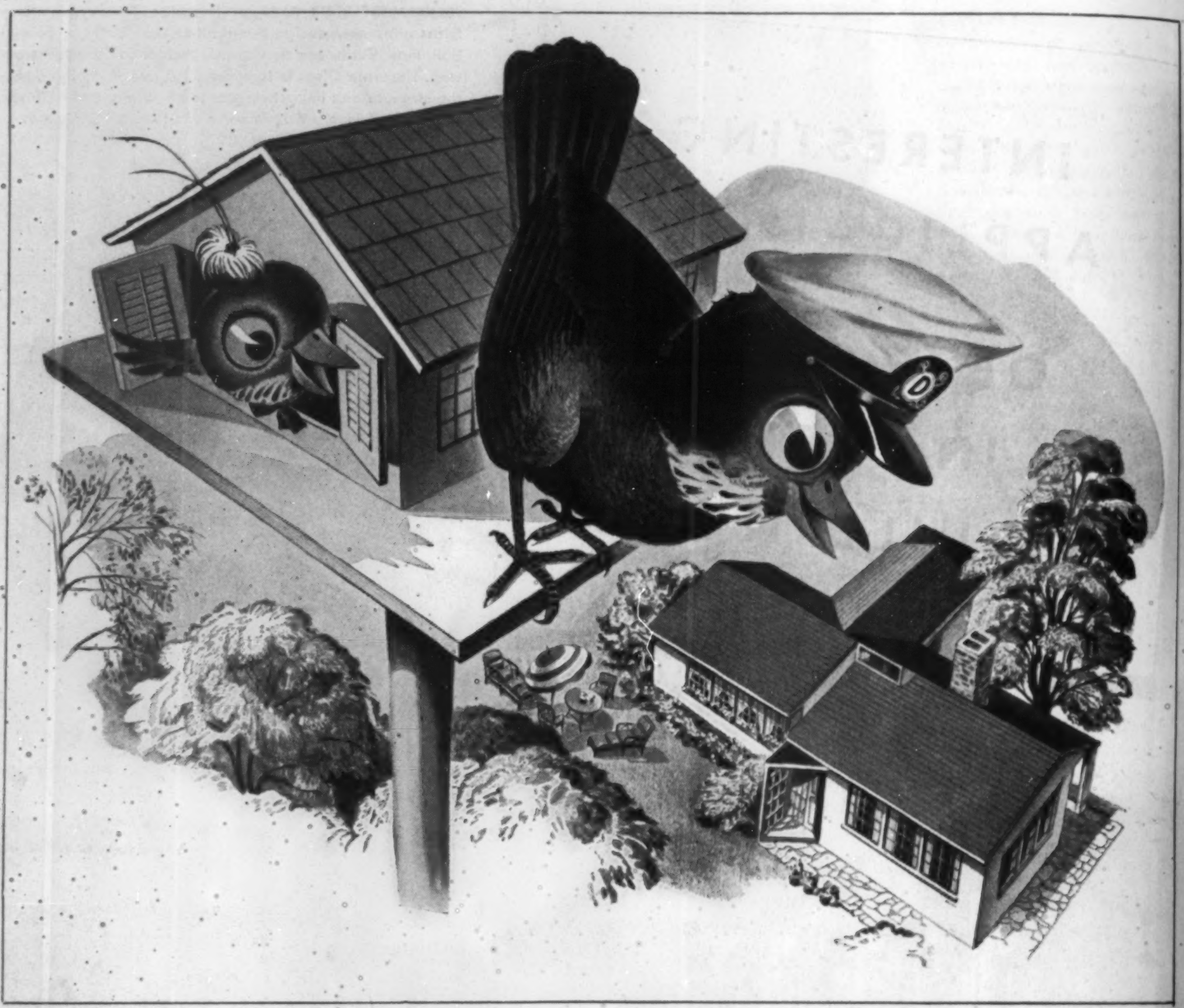


Bird's Eye View . . .

Just looking at the outside, as Defoe's little feathered home-builders are, can't possibly convey any idea of the comforts and advantages which are being perfected for your postwar home!

● ● Many new features that will save hours of tiresome housework are among the advancements in functional design, planned by Defoe's Housing Division for homes of tomorrow, large and small. These scientifically planned Defoe home-units will offer not only beauty and individuality of design but also the financial advantages made possible by modern mass production methods.

● ● And remember that today, while you're investing in War Bonds to do your part in defeating the Axis . . . you're also steadily building up a nest-egg that will help finance your future home, when you're ready to build!

HOUSING DIVISION – DEFOE SHIPBUILDING COMPANY, BAY CITY, MICH.

☆☆☆☆☆ *Five White Star Renewal Citations now decorate the Navy "E" Award won by Defoe workers.*

BACK THE ATTACK
–BUY WAR BONDS

Defoe

SHIPS FOR VICTORY
SERVANTS FOR PEACE

HERE AGAIN, BRONZE COMBINES *enduring beauty and utility*

New England Mutual Life Building, Boston. Cram and Ferguson, Architects. Turner Construction Co., General Contractors.

EVIDENCE OF THE architect's intention to build for permanence is seen in the bronze windows of the strikingly handsome home office building of the New England Mutual Life Insurance Company of Boston. Fabricated from Anaconda Architectural Extruded Shapes by the General Bronze Corporation, these windows lend impressive dignity and the enduring, rustless beauty that only bronze can impart.

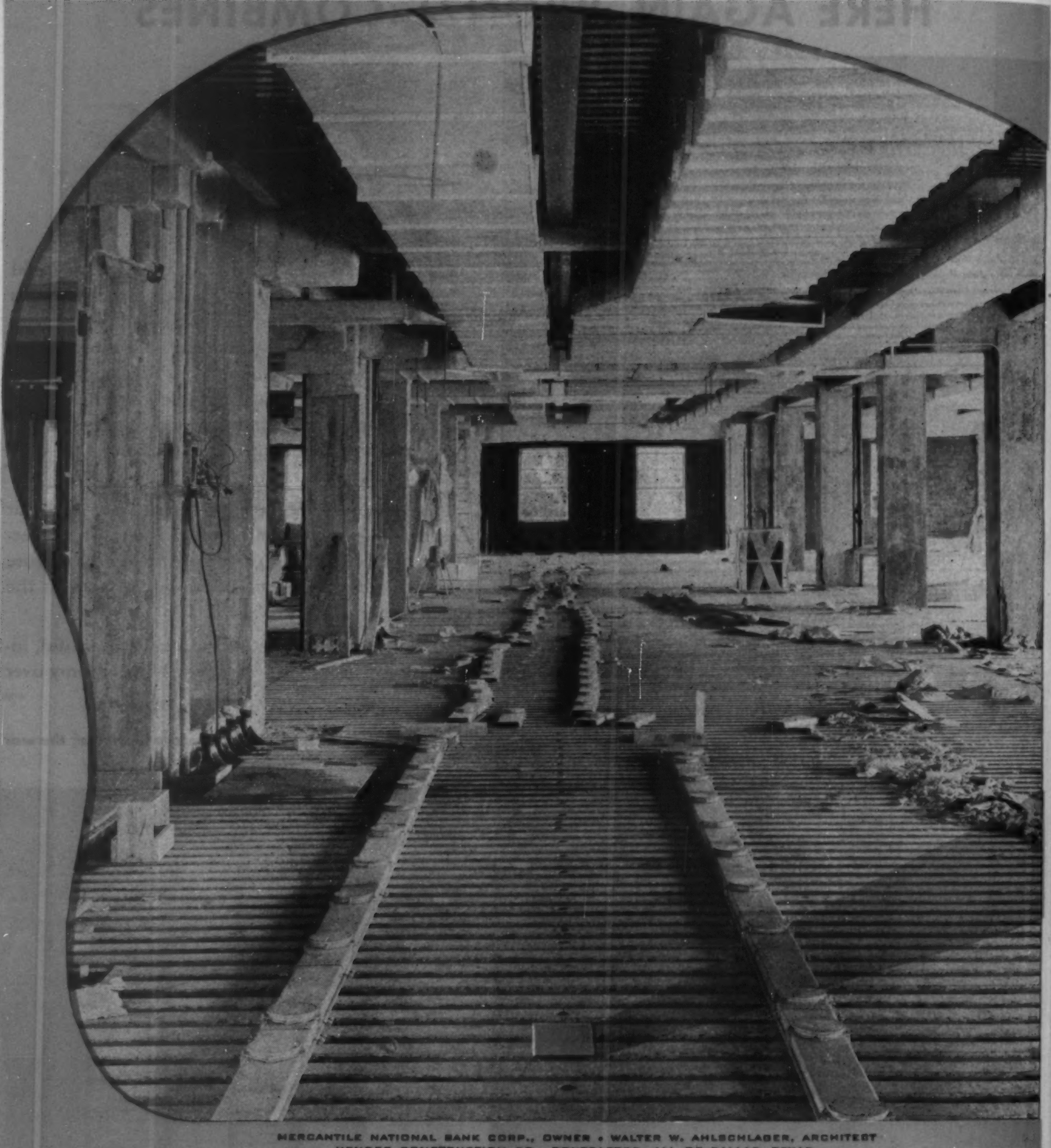
Even more important, perhaps, is the fact that such windows require no maintenance, no painting, operate smoothly, will never bind or cause panes to fracture from rust accumulation in the channels.

Architectural bronze, traditionally beautiful, increasingly useful, provides long run economy over less durable materials. 4433

BUY BONDS . . . *buy more than before to shorten the war*

Anaconda Architectural Bronze

THE AMERICAN BRASS COMPANY— General Offices: Waterbury 88, Connecticut
Subsidiary of Anaconda Copper Mining Company—In Canada: ANACONDA AMERICAN BRASS LTD., *New Toronto, Ont.*



MERCANTILE NATIONAL BANK CORP., OWNER • WALTER W. AHLSCHLAGER, ARCHITECT
HENGER CONSTRUCTION CO., CONTRACTOR. ALL OF DALLAS, TEXAS.

Q-FLOORS

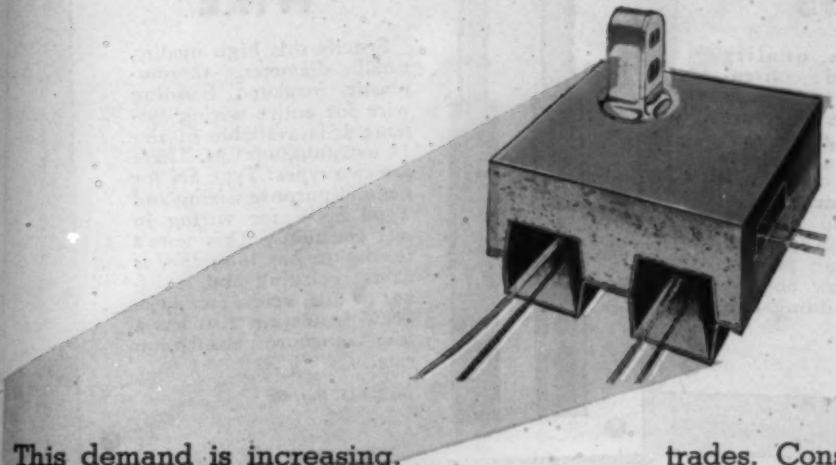
H. H. ROBERTSON CO.

2404 FARMERS BANK BUILDING
PITTSBURGH 22, PENNSYLVANIA

OFFICES IN 45 PRINCIPAL CITIES
WORLD-WIDE BUILDING SERVICE

SPECIFICATION:

Owner wants to tap floor anywhere anytime and get electricity.



This demand is increasing.

It sounds like endless grief, ripping up floors and forever filling the place with mess and confusion. But Robertson Q-Floors are constructed to take this specification for granted—and make everybody like it.

Q-Floors are steel cells, crossed over by wire raceways. An electrician can drill into any six-inch area and install an electrical outlet in a matter of minutes. Floor plans are always fluid. Change is quick—with no trenches, no fuss.

And no grief for the architect.

Consider what electrical availability on a six-inch modulus means to any building. It will stay electrically modern no matter what the wonders of electronics produce. It will be always equal to the increasing mechanical demands on future buildings.

But there are also Q-Floor structural features that make a hit with any client. For example, Q-Floors reduce building time 20 to 30%. Two men can lay 32 square feet of Q-Floor in half a minute. The floors can be completed almost as soon as the frame. No wet materials delay progress—the Q-Floor immediately becomes a platform for all other trades. Construction is quick, quiet, clean, fireproof, without forms or shoring. Stairs can be installed as soon as the floors. Work soars upward!

Also, Q-Floors are light in weight. This effects considerable saving through the use of lighter framework. All these factors have a lot to do with the cost of Q-Floors being—this may surprise you considering their electrical advantage—right in line with just average floor costs.

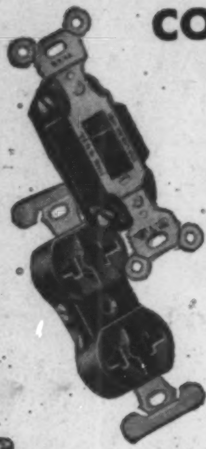
You can obtain detailed information from a Robertson representative or write for Q-Floor literature. The Electrical Fittings for Q-Floors are sold through General Electric construction materials distributors, who will gladly furnish complete data.

TIME-TESTED — OVER 3000 ROBERTSON Q-FLOOR INSTALLATIONS.

THE EASIEST THING FOR A BUILDER TO FORGET—
Floors are what a building is for

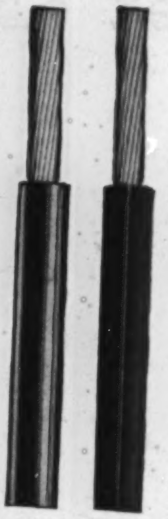
G-E Wiring Material News

SPECIFY G-E SWITCHES AND CONVENIENCE OUTLETS



G-E high quality switches and convenience outlets will benefit any building. They are good looking and will give long, dependable service. Your clients will like them. Include G-E switches and convenience outlets in specifications for war purpose buildings now and for all types of buildings after the war.

SPECIFY FLAMENOL* BUILDING WIRE



Specify this high quality, small diameter, thermoplastic insulated building wire for entire wiring systems. It is available in size 14 to 2,000,000 CM. There are two types: Type SN for general purpose wiring and Type SNW for wiring in wet locations. This wire's insulation has long life, is flame retarding and resistant to oils, acids, etc. Type SNW insulation also has a low moisture absorption rate.

*Reg. U.S. Pat. Off

FOR UNDERFLOOR ELECTRICAL DISTRIBUTION

General Electric offers two types of underfloor wiring. Both give great electrical flexibility to factories, stores, offices, etc. Electrical outlets can be preset or added later as needed.

SPECIFY G-E Q-FLOOR WIRING
with Robertson cellular steel Q-Floors

SPECIFY G-E FIBERDUCT
for Masonry and Wood Type Construction

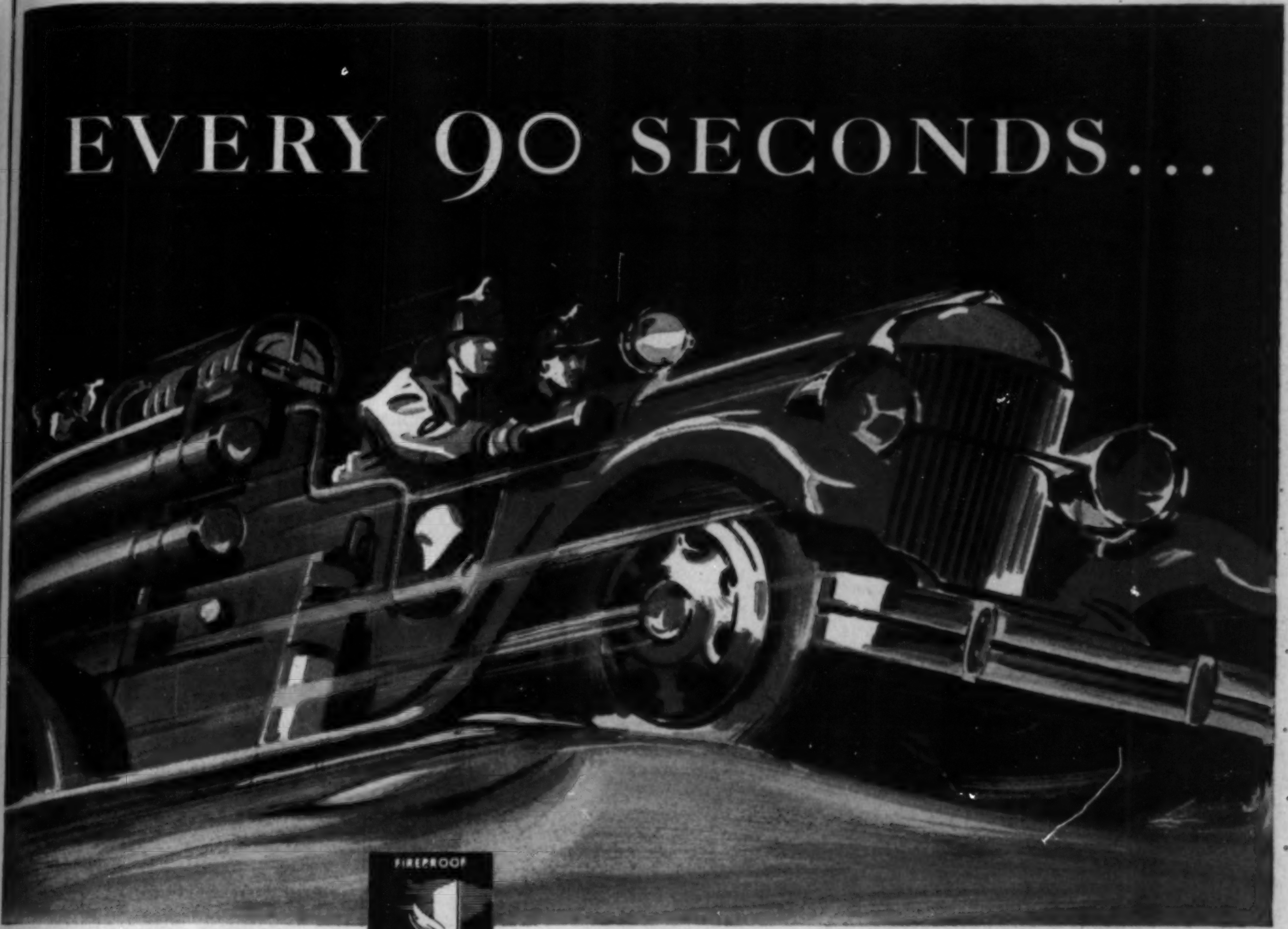
FOR COMFORTABLE LIVING

Walter R. Hagedohm, A.I.A. architect, Los Angeles, Calif, says, "In this button-pushing age, adequate wiring is essential for the full realization of comfortable living through electrical conveniences."

ADEQUATE WIRING
SERVES AND SAVES
THE KEY TO THE HOME OF TOMORROW

BUY WAR BONDS AND HOLD THEM

GENERAL ELECTRIC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SHEETROCK *Fireproof* WALL *and* CEILING PANELS

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"WELDED WALLS"

Every 90 seconds, fire attacks a home, an office building, or a factory . . . and no one knows when, where or who is next. Protect against fire! One way is to use fireproof Sheetrock* wall and ceiling panels. For they are made of gypsum, the fire-resisting mineral that cannot burn. In a building they shield the framework over which they are applied till help has a chance to arrive.

You can decorate Sheetrock with any type of finish . . . the minute the last panel is nailed up. Choose sweeping, unbroken surfaces — welded with joint-concealing Perf-A-Tape*— or feature the joints with the Bevel Edge method. Or if you want ready-finished walls, use Sheetrock woodgrain finishes that are faithful reproductions of Knotty Pine, Walnut and Bleached Mahogany. Write today. 300 West Adams Street, Chicago 6, Illinois.

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Gypsum • Lime • Steel • Insulation • Roofing • Paint

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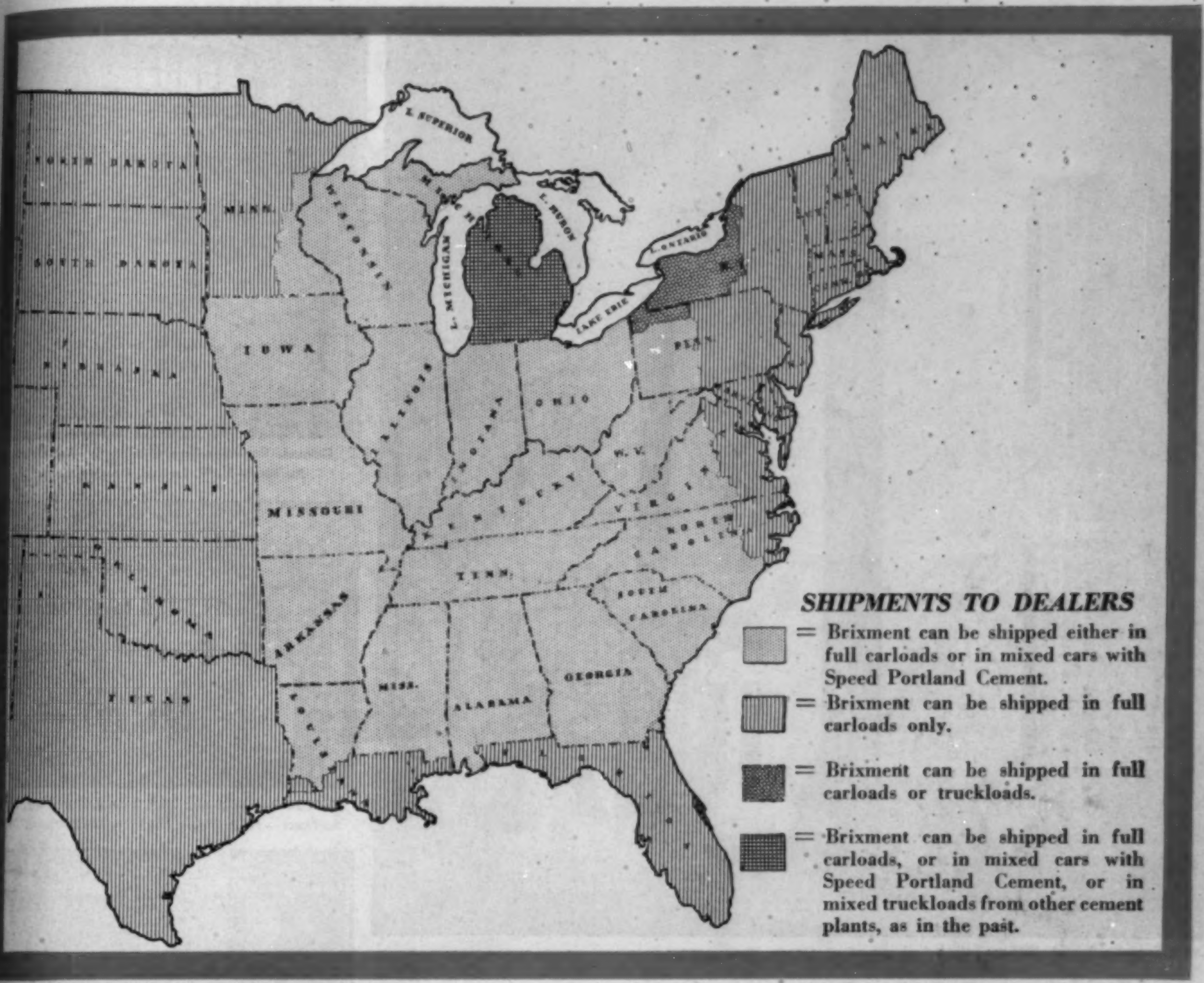
Bethlehem structural steel shapes have helped American builders storm the skies, now, for nearly four decades. The development of Bethlehem wide-flange sections especially has played a dramatic role in this great thrusting up of American skylines.

With the resumption of building, Bethlehem structural shapes will again commend themselves to architects and engineers. Bethlehem shapes are rolled in a full range of sizes, from 36-inch wide-flange beams down to the smallest shapes used in steel construction.

BETHLEHEM STEEL

BETHLEHEM STRUCTURAL SHAPES


L. SUPERIOR
NORTH DAKOTA
MINN.
WISCONSIN
MICH.
L. HURON
L. MICHIGAN
SOUTH DAKOTA
L. ONTARIO
N.Y.
MAINE
MASS.
LAKE ERIE
IOWA
NEBRASKA
PENN.
ILLINOIS
OHIO
INDIANA
KANSAS
W.V.
MISSOURI
KENTUCKY
VIRGINIA
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ARKANSAS
GEORGIA
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TEXAS
ALABAMA
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- ▨ = Brixment can be shipped either in full carloads or in mixed cars with Speed Portland Cement.
- ▥ = Brixment can be shipped in full carloads only.
- ■ = Brixment can be shipped in full carloads or truckloads.
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IMPORTANT NOTICE!

For a good many years, Brixment Masonry Cement has been distributed not only by the two Louisville Cement Co. mills in which it is made (at Speed, Indiana, and Brixment, N. Y.) but also through other manufacturers of Portland Cement.

Today, the cost of manufacturing Brixment has risen so sharply that we can no longer continue to distribute it through other cement plants. Therefore, effective June 1, Brixment will be shipped only from the two mills at which it is made (except for lower Michigan—see map.)

Thousands of Brixment dealers have always bought Brixment in mixed cars with Speed Portland Cement, or in full carloads, direct from the mills. Such dealers will in no way be affected by the new policy.

Like Brixment, Speed Portland Cement is an outstanding material in its field, backed by 115 years of cement-making experience. No better Portland Cement is made. . . . If you want any further information, please write, wire or telephone.

Louisville Cement Company, Incorporated
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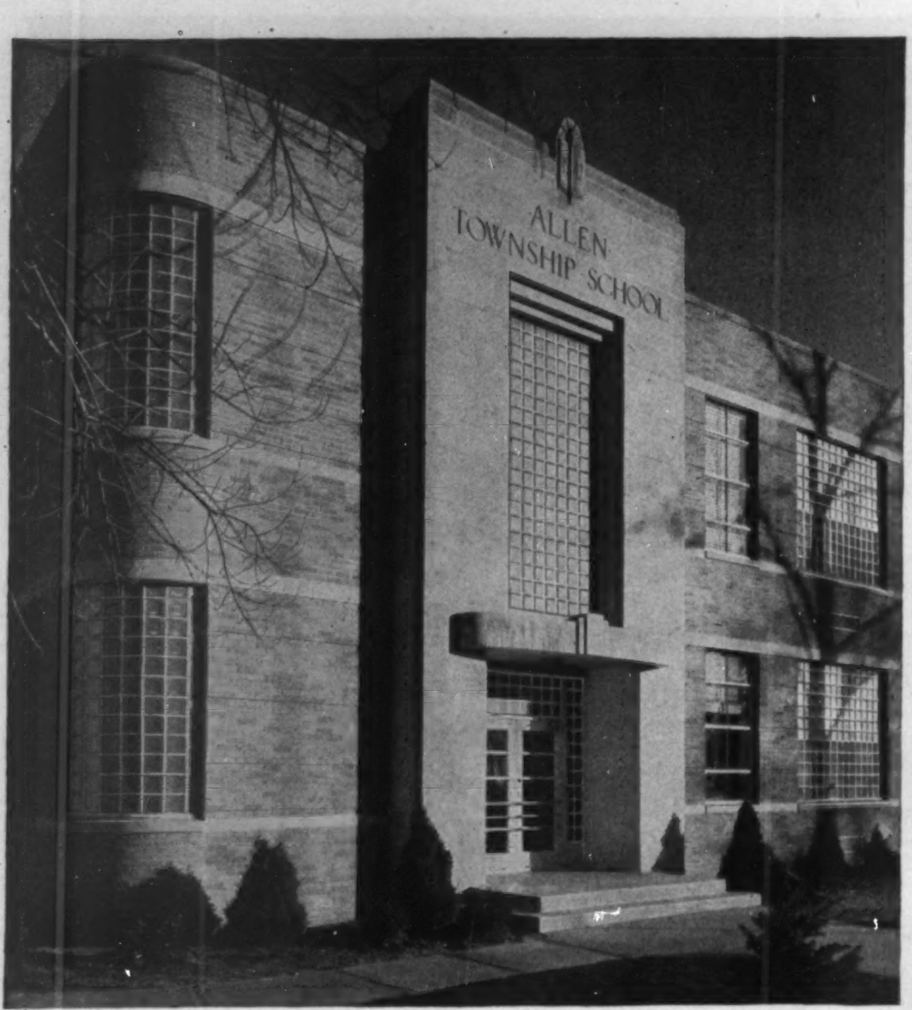
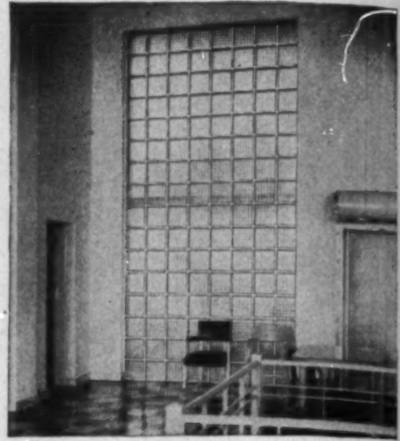
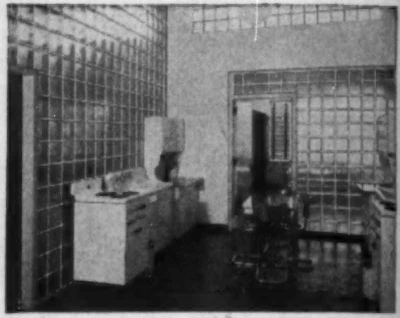
BRIXMENT
Masonry Cement
SPEED
Portland Cement



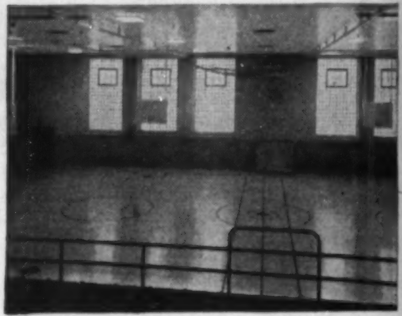
Allen Township School, Williston, Ohio. Architect—C. H. Shively, Fremont, Ohio



Colorado State Teachers College, Greeley, Colo.
Architect—F. W. Ireland, Greeley, Colo.



Beall Junior and Senior High School, Frostburg, Md.
Architect — Robert Holt Hitchins, Cumberland, Md.



Cardinal Hayes High School, New York City, N.Y.
Architects—Eggers & Higgins, New York City

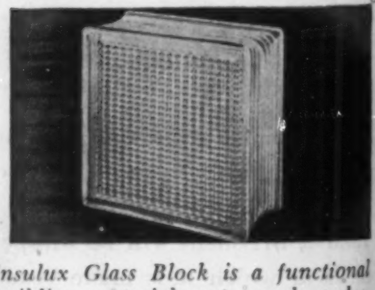
How to make full use of Natural Daylight

School boards have made an important discovery! They have found that they can save money and—more important still—*they can save children's eyes* by installing light-giving panels of Insulux Glass Block.

Panels of Insulux Light-Directional Block transmit and diffuse light far better than ordinary construction and, at the same time, provide privacy along with light.

When these Light-Directional Block are used, natural daylight can be projected deep into the interior of classrooms, laboratories, gymnasiums, corridors and entrance ways. *There is light for all—without objectionable glare!*

There are other advantages, too. Panels of Insulux cut down sound transmission — lock out dirt and dust, and reduce materially the cost of cleaning, heating and air conditioning.



Insulux Glass Block is a functional building material—not merely a decoration. It is designed to do certain things that other building materials cannot do. Investigate!

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INSULUX
GLASS BLOCK

For technical data, specifications, and installation details, see our section in Sweet's Architectural Catalog, or write: Insulux Products Division, Dept. B-33, Owens-Illinois Glass Company, Toledo 1, O.

Another Smart Move by D. & D.

1 You have heard of Dobbs & Datton,
Ad-men keen from old Manhattan,
Who decided on expansion
To new quarters like a mansion.

OFFICE SPACE TO RENT

2 Though their search was wide and far
Nothing quite came up to par,
Till at last they made a find —
Just the place they had in mind.

3 Took one floor — and then a second;
For, as they so wisely reckoned,
They'd outdistance competition
With air in *correct* condition.

It pays to be sure that your clients have correct air conditioning . . . that temperature, humidity, circulation and ventilation are scientifically blended for the comfort of customers and for personnel efficiency . . . that air cleanliness is complete for protection of merchandise and furnishings.

Be sure your clients get it. Call for Westinghouse application assistance early in the planning of new or modernized commercial or industrial buildings. Phone your nearest Westinghouse office or write Westinghouse, 150 Pacific Avenue, Jersey City 4, N. J.

THE SERVICE-PROVED HERMETICALLY-SEALED COMPRESSOR

These Westinghouse economy-satisfaction advantages have been proved by years of service in thousands of installations:—

No Shaft Seals. **During wartime refrigerant shortages, few Westinghouse systems were ever "down." Why? Because seal leaks are the cause of a large percentage of all system failures.**

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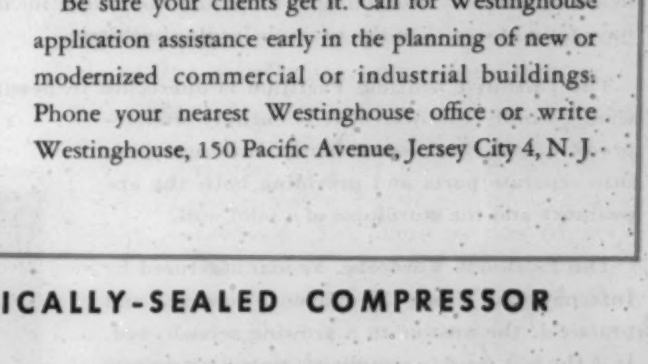
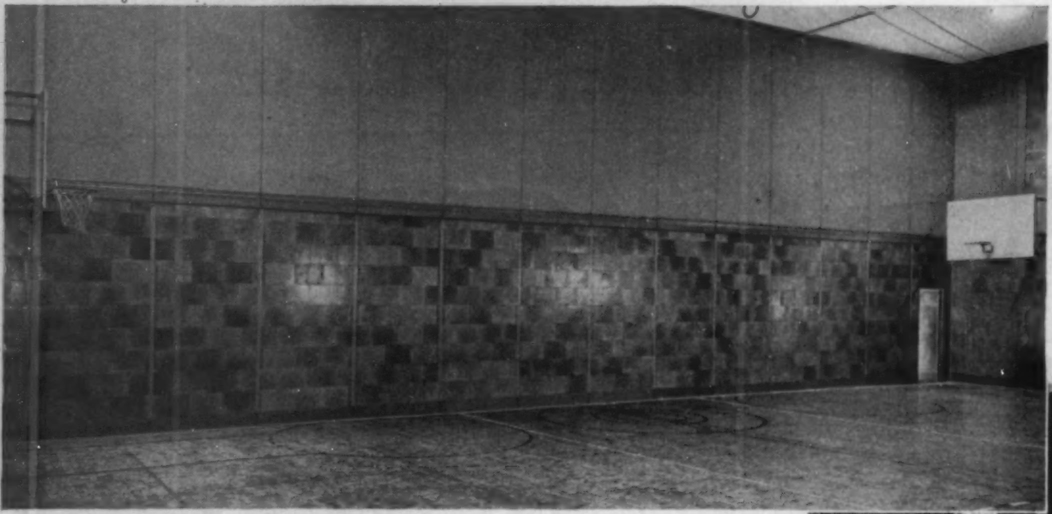


Hermetically-Sealed like a Mazda lamp.

Westinghouse CORRECT Air Conditioning

PLANTS IN 25 CITIES . . OFFICES EVERYWHERE

Westinghouse Presents *John Charles Thomas* • Sunday, 2:30 E.W.T., N.B.C.



These two views show gymnasium Unitfold Partition installation at Riverhead High School, Riverhead, N.Y. Wm. I. LaFon, Jr., architect. Fourteen units, each 5' wide and 22' high, are folded into a shallow pocket concealed by pocket door when not in use.

Specify the finest . . .

FAIRHURST UNITFOLD PARTITIONS
FAIRHURST SCHOOL WARDROBES

The International Steel Co., whose name long has been familiar and respected in the building field, now offers an attractive, practical, troubleproof folding partition and an equally high-quality school wardrobe. Both are products of 30 years' experience and testing on the part of their inventor, John T. Fairhurst. They were selected by International Steel after months of painstaking research and critical testing and are a natural complement to the widely known Van Kannel, Atchison and International Revolving Doors that for many years have found favor with the nation's leading architects.

The Fairhurst Unitfold Partition is unexcelled in beauty and design. Soundly engineered, it is entirely troubleproof, quickly and conveniently dividing rooms into separate parts and providing both the appearance and the sturdiness of a solid wall.

Below is shown a typical Fairhurst Wardrobe in a public school at Hewlett, L. I., N.Y. L. J. Lincoln, architect.

The Fairhurst Wardrobe, as manufactured by International Steel, is efficient, modern and practical, the answer to a growing school need. It is the last word in simplicity, providing unique spacesaving and safety features in its strong, sturdy design.

Just off the press is a new, fully illustrated booklet, giving details and specifications of both the Fairhurst Unitfold Partition and the Fairhurst School Wardrobe. Write for your copy today.

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OTHER PRODUCTS: AUTOMATIC, COLLAPSIBLE VAN KANNEL, ATCHISON AND INTERNATIONAL REVOLVING DOORS; STRUCTURAL STEEL; HANGAR BUILDINGS; AIRPLANE HANGAR DOORS; STEEL STAIRS; STEEL WINDOWS, AND ORNAMENTAL STEEL.

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Blanched at 212°

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FROSTED FOODS

Enjoyed at any temperature

Photos courtesy Birdseye Division, General Foods Corp.

Insulation plays an important role today in helping to bring better food to America's tables. In frozen food processing, as in a host of other industrial processes, temperature is a valuable tool—which insulation maintains without waste. Armstrong has been making and installing insulations for industry for more than 40 years. Its complete contract service includes: (1) practical engineering help; (2) materials of tested efficiency; (3) skillful installation. You can use this triple service to advantage not only in the food industry, but in any industry where your clients' plans call for the maintenance of low, intermediate, or high temperatures. For full information, write to Armstrong Cork Company, Building Materials Division, 2406 Concord St., Lancaster, Pa.

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Complete Contract Service
For All Temperatures

From 300° Below Zero

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Are you informed about the *new* Titanium Steel for Vitreous Enameling

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LABORATORY-TESTED and plant-proved are the advantages of this *new* Titanium steel to manufacturers of vitreous enamel products, when recommended practice is followed in steel making, pickling and enameling.

By removing source of reboil in the stock, large cost reductions are possible. Ground coat can be eliminated and conventional cover coats may be applied directly. Sagging is minimized, and hydrogen penetration is sharply reduced.

Lighter weights of enamel are possible, yielding a greater resistance to thermal shock. Drawing properties are equivalent to that of the best drawing steel.

Manufacturers of both steel and enameled products may obtain complete technical data from a member of our Technical Staff. Consult your steel supplier for deliveries.

THE MERIT MARK OF METAL
TAM
METALLURGICAL ALLOYS

Pending patent applications on the new enameling process and product made thereby are owned jointly by Inland Steel Company and The Titanium Alloy Manufacturing Company under Trust Agreement.

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Executive Offices: 111 BROADWAY, NEW YORK, N. Y. *General Offices and Works:* NIAGARA FALLS, N. Y.

No matter what Paint Vehicle is needed . . .

- SYNTHETIC RESINS
- NATURAL RESINS
- MODIFIED SYNTHETICS
- DRYING OILS

RED LEAD'S WIDE COMPATABILITY

makes its Extra Rust Protection Available

The fact that Red Lead is generally accepted throughout industry as the standard metal protective paint indicates two things:

1. *That it must be widely adaptable to various service conditions.*
2. *That it must offer something* EXTRA *in the way of rust prevention.*

Red Lead's versatility is due principally to its compatability with the wide range of vehicles needed to answer present-day service demands. It can be used with practically every type of paint vehicle on the market—synthetic resins, natural resins, drying oils, and combinations of these.

Thus, paints for any metal protective purpose can be formulated with Red Lead. Since almost any paint vehicle can be used with Red Lead, a broad range of drying requirements can be met—anything from the normal drying primer used on structural steel to the quick-drying paint essential to present-day production schedules.

Why Red Lead means Extra Rust Protection

Red Lead has the property of counteracting acid conditions, recognized as accelerators of rust. In the presence of various acids, Red Lead forms insoluble lead salts at the approximate rate at which the acids are supplied.

This is true whether the acid originates from acid-forming environments, such as gas, smoke and moisture in the atmosphere, or from the decomposition of the vehicle. Thus, a rust-inhibiting condition is maintained with a Red Lead paint.

Red Lead also forms an adherent protective shield which prevents electrochemical action, another prime cause of rusting.

Specify RED LEAD for All Metal Protective Paints

The value of Red Lead as a rust preventive is most fully realized in a metal paint where it is the only pigment used. However, its rust-resistant properties are so pronounced that it also improves any multiple pigment paint.

No matter what price you pay, you'll get a better paint for surface protection of metal, if it contains Red Lead.

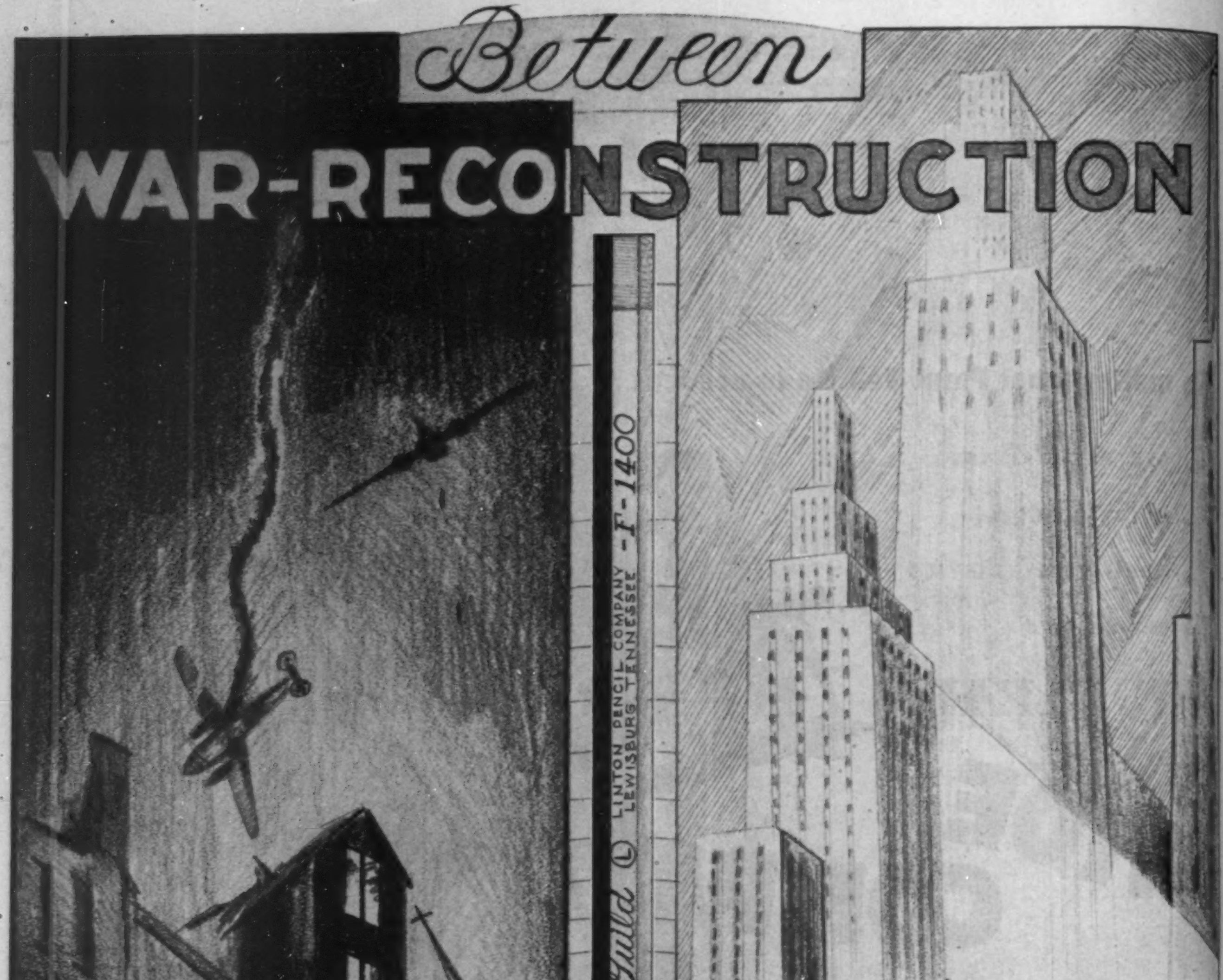
Write for New Booklet—"Red Lead in Corrosion Resistant Paints" is an up-to-date, authoritative guide for those responsible for specifying and formulating paint for structural iron and steel. It describes in detail the scientific reasons why Red Lead gives superior protection. It also includes typical specification formulas—ranging from Red Lead-Linseed Oil paints to Red Lead-Mixed Pigment-Varnish types. If you haven't received your copy, address nearest branch listed below.

* * *

All types of metal protective paints are constantly being tested at National Lead's many proving grounds. The benefit of our extensive experience with paints for both underwater and atmospheric use is available through our technical staff.

NATIONAL LEAD COMPANY: New York 6, Buffalo 3, Chicago 80, Cincinnati 3, Cleveland 13, St. Louis 1, San Francisco 10, Boston 6 (National-Boston Lead Co.); Pittsburgh 30 (National Lead & Oil Co. of Penna.); Philadelphia 7 (John T. Lewis & Bros. Co.); Charleston, W. Va. (Evans Lead Division).

DUTCH BOY RED LEAD


Between
WAR-RECONSTRUCTION
Art-Guild (L) LINTON PENCIL COMPANY LEWISBURG TENNESSEE -F-1400
L
Come
Edwin Shofner 1942
Art-Guild PENCILS

This drawing is one of a series made with ***Art-Guild*** *BONDED LEAD drawing pencils*

Art Guild pencils are available in 17 precision-milled degrees — 6B to 9H. Beautifully finished in green lacquer, they come neatly packed in a metal box.

Try them at our expense. We will gladly send you a few Art Guild pencils for personal test. Just drop us a note on your letterhead, specifying the degrees you prefer.

LINTON PENCIL CO., Lewisburg, Tenn.

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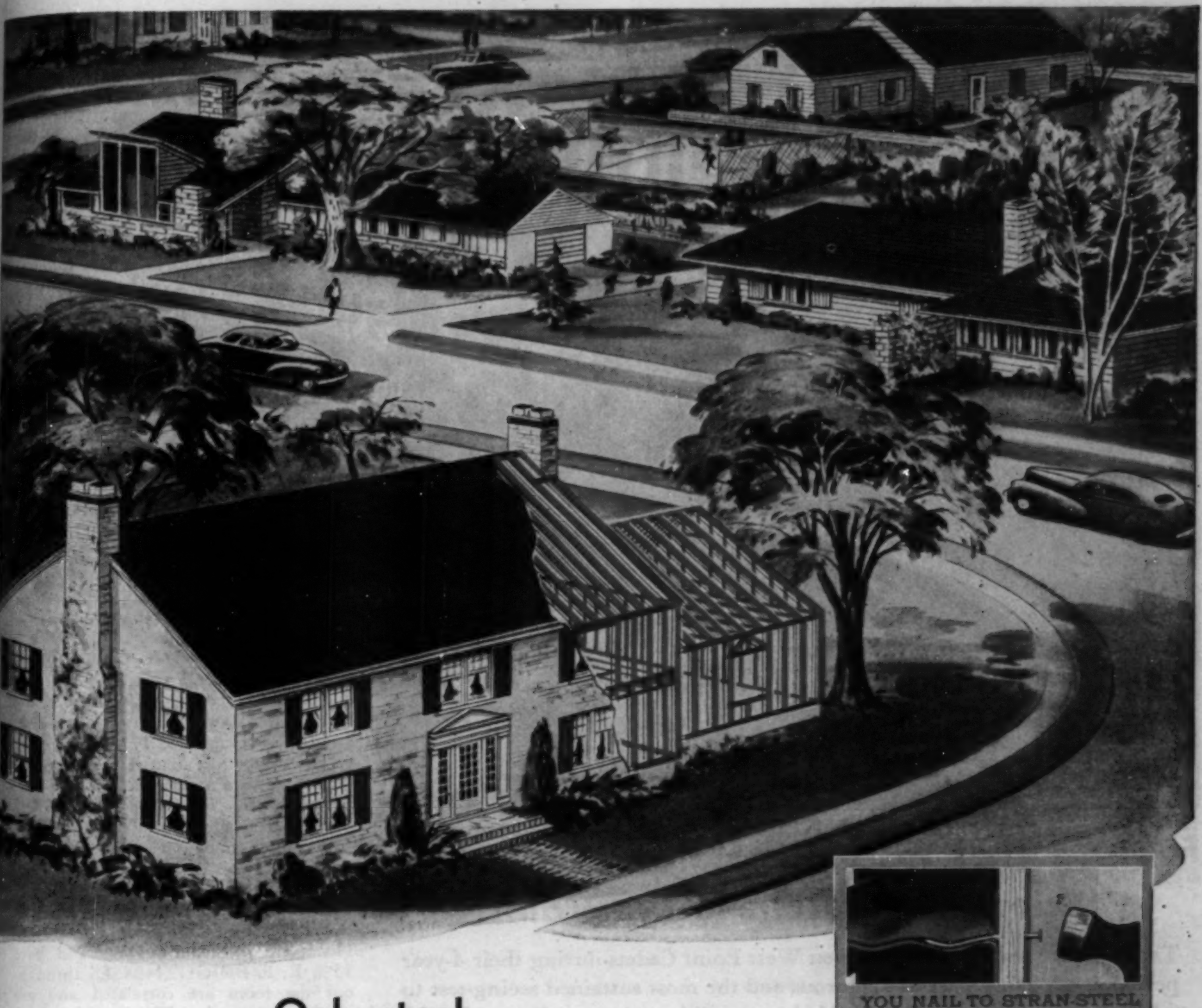


Only steel
can provide steel's permanence

The economical permanence of steel-framed buildings cannot be questioned. Stran-Steel has added mass-production economy to home and industrial building. It has taken its place as a universal building material of unlimited adaptability. Whether used in single residences, multiple dwellings, apartment houses or commercial structures, Stran-Steel has brought new efficiency and new flexibility to building design.

Light in weight, rustproofed, Stran-Steel is an ideal material to work with . . . gives speed of erection, fire-safety and lowered maintenance. Joists, studs and plates are of steel—steel for strength, uniformity and imperviousness to termites and dry-rot. Think in terms of Stran-Steel for *permanent*, economical construction.

Think in terms of

STRAN STEEL

SERVING TODAY IN THE QUONSET HUT

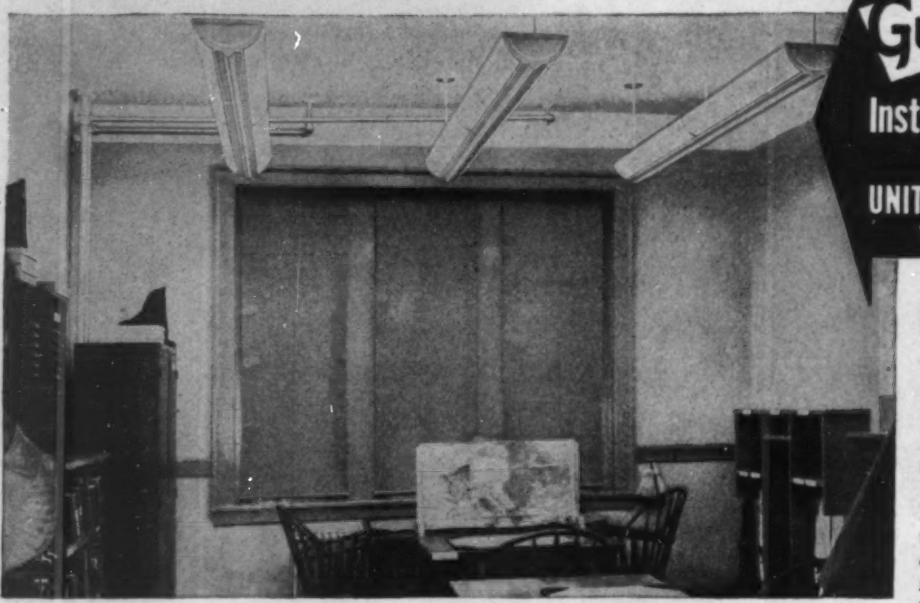
GREAT LAKES STEEL CORPORATION

Manufacturer of the Famous Quonset Hut for the U. S. Navy

STRAN-STEEL DIVISION • 37TH FLOOR PENOBSCOT BUILDING
DETROIT 26, MICHIGAN

UNIT OF NATIONAL STEEL CORPORATION

600 WEST POINT STUDY-ROOMS Relighted with GUTH "Cadet" Indirects!



Guth "CADETS"

LUMINOUS INDIRECTS

Installed in Typical Study-Room

OF THE

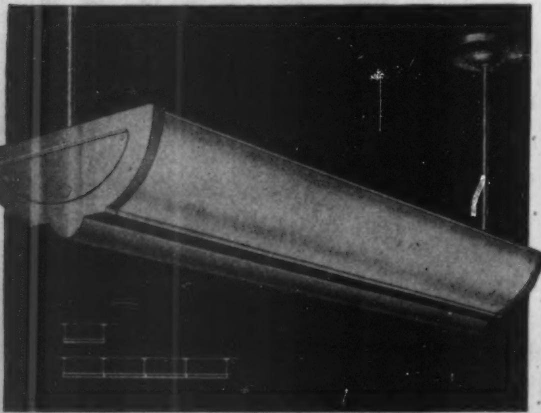
UNITED STATES MILITARY ACADEMY

WEST POINT, NEW YORK

Foot-Candles *Plus* Correlated Brightnesses Scientifically Relieve Eyestrain!

The intensive course of study given West Point Cadets during their 4-year period, is probably the most rigorous and the most sustained seeing-test to which man is subjected. To provide best possible seeing-conditions for the critical seeing-tasks involved, all West Point study-rooms have recently been equipped with highest quality of illumination.

High-intensity illumination has been provided, PLUS uniform distribution of lighting, PLUS shadow-free features, PLUS low-brightness luminaries, PLUS correlated brightnesses throughout the entire room area. The study-rooms were painted to complement the illuminating system. Specific details of the installation are given at the right.



"CADET" Data

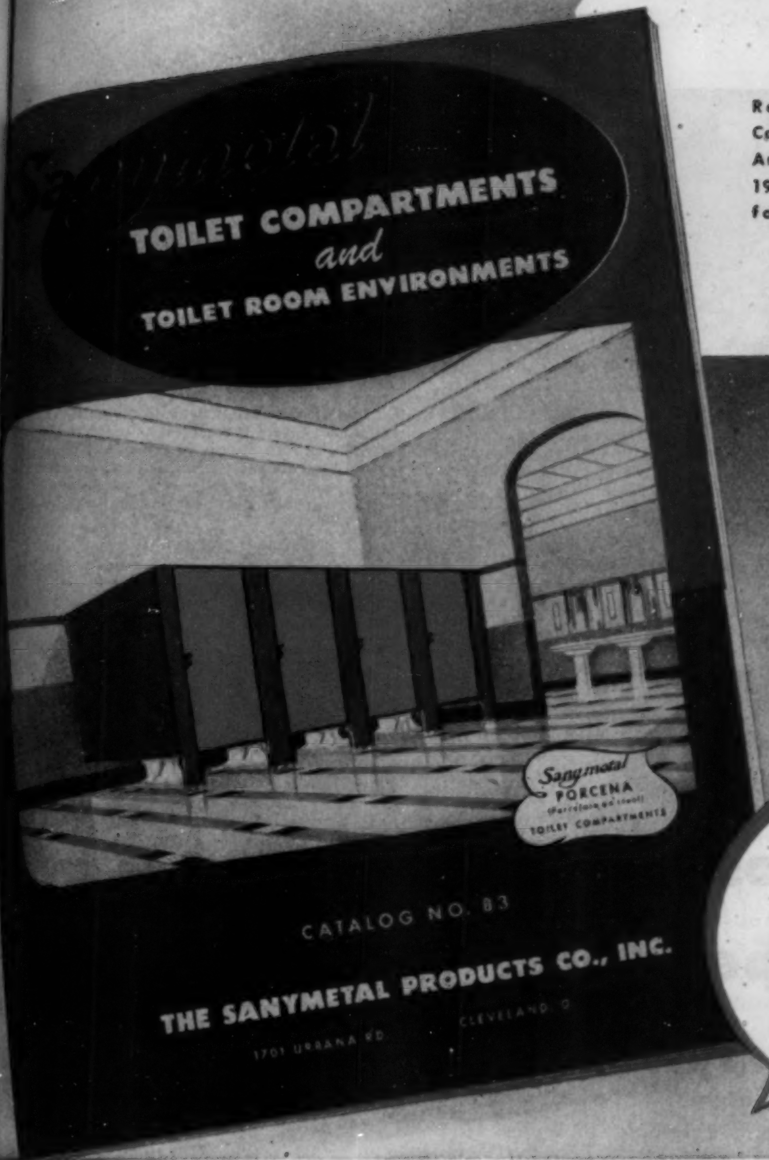
Guth "CADET" is a Luminous Indirect Luminaire for use with two rows of either 40-watt, or 100-watt Fluorescent Lamps. CADET is suspended on single-stem hangers, and is constructed for individual or continuous-row installations. The translucent cream-white reflectors direct approximately 75% of the light upward, and 10% downward. Room-ceilings should be painted Albino White to cooperate with the lighting system. Average fixture brightness of 40-watt CADETS is 221 Foot-Lamberts; 375 F. L. for 100-watt CADETS. Fixtures are 48⅛" and 60⅛" long respectively, and should be suspended from 20" to 36" from the ceiling. All metal portions of CADETS are finished "300° White". Listed by Underwriters' Laboratories, Inc.

INSTALLATION DATA

The typical West Point study-room is 14' 0" long by 15' 4" wide, with 10' 8" ceiling height. **LIGHTING** is provided by three Guth CADETS, each 96⅛" long and each equipped with 4-40 watt White Fluorescent lamps (2.9 watts sq. ft.). Fixtures are suspended 17" from ceiling to top-of-reflector; fixtures are on 3' 9" centers, and are run parallel to the 14' 0" room-length. **ROOM-PAINTING COLORS** were selected to co-operate with the illumination system. The entire ceiling, plus 12" top of sidewalls, are painted off-white color with 77% Reflection-Factor. Remainder of side-walls is painted soft-green, having 54% R.F. Floors are painted light-gray and have 15% R. F. **BRIGHTNESSES** throughout the room are correlated and are of the same order. The four brightest spots on the CADET luminaries average 221 Foot-Lamberts. The four brightest spots on the ceiling average 106 F. L. The brightnesses on the side-walls at eye-level, average 13.8 F. L. **FOOT-CANDLE READINGS** are very uniform throughout the study area. Horizontal readings on the study-tables (31" above floor) are 45.4 Foot-Candles. Illumination at 45° to vertical, 36" above the floor, and 12" out from the study-table, is 23.7 Foot-Candles. Horizontal illumination at the 4 corners of a 10' 0" square is 29.8 Foot-Candles. **SOUND** from the fixture is practically eliminated (difference between total noise and background is only 0.5 at sound level of 37.5 decibels). **RADIO INTERFERENCE** is eliminated by use of one filter in each 8' 0" CADET fixture. **STROBOSCOPIC** is unnoticeable, in both lamps combined, the peak light-output is 14% above the average light-output. **ENGINEERING** for the entire installation was done by the United States Engineers, New York District Office. **WHOLESALER** was the Baitinger Electric Co., Inc., New York City, N. Y. **ARCHITECTS** were the firm of York & Sawyer, N. Y. C.

The EDWIN F. GUTH CO. • 2615 Washington Ave. • Saint Louis 3, Missouri

Guth


Sanymetal
TOILET COMPARTMENTS
and
TOILET ROOM ENVIRONMENTS

CATALOG NO. 83

THE SANYMETAL PRODUCTS CO., INC.
1701 URBANA RD. CLEVELAND O.

Refer to Sanymetal Catalog 19b/5, Sweet's Architectural File for 1945, for complete information on Toilet Environments.

Create an Element of Refinement with Sanymetal Porcena (Porcelain on Steel) Ceiling Hung Toilet Compartments. **The design and construction details for the new ceiling hung toilet compartments, as well as the usual standing types, may be obtained from Sanymetal's Catalog in Sweet's and from the Sanymetal Representative in your city. Use Sanymetal Porcena (Porcelain on Steel) Toilet Compartments to be sure of strictly modern toilet room environments, and to insure against obsolescence.**

Sanymetal
Porcena (Porcelain on Steel)
TOILET COMPARTMENTS AND TOILET ROOM ENVIRONMENTS

A GUIDE TO TOILET ROOM TREATMENTS FOR *Buildings of the Future*

The aesthetic treatment of a toilet room environment is no longer secondary to its utility. A late pre-war trend toward blending the utility of toilet fixtures with appropriate toilet room environments will have its full unfoldment in all types of the buildings of the future.

Great strides have been achieved in the development of toilet room environments in keeping with other environmental treatments of a building. Sanymetal Porcena (porcelain on steel) Toilet Compartments, of which there are several types, lift the toilet room environment into harmony with other modern appointments of the building. Sanymetal Catalog No. 83 for 1945 illustrates Sanymetal Ceiling Hung and Standing Types of Toilet Compartments that are suitable for creating original toilet room environments in all types of buildings. Ask the Sanymetal Representative in your vicinity for a copy of this catalog or refer to Sanymetal Catalog 19B-5 in Sweet's Architectural File for 1945. If you need an extra copy of the catalog, use coupon.

THE SANYMETAL PRODUCTS CO., INC. • 1689 Urbana Road, Cleveland 12, Ohio

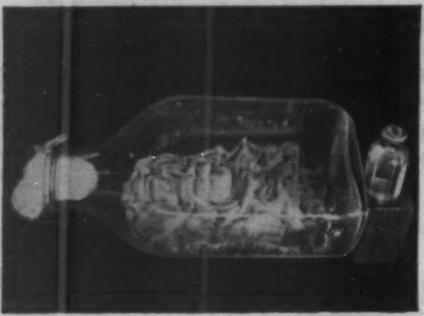
Sanymetal*
Trade Mark Reg. U. S. Pat. Off.

TOILET COMPARTMENTS
and Office Partitions

THE SANYMETAL PRODUCTS CO., INC.
1689 Urbana Road, Cleveland 12, Ohio

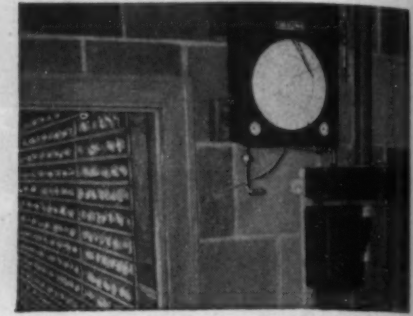
Please send Sanymetal Toilet Room Environments Catalog No. 83.

Name.......................Position..........................
Firm...
Address..
City.......................State.............................
Please attach this coupon to your business letterhead.



1. Quart flask containing Penicillin culture after seven days of incubation. The small bottle on the right is about ⅛ full of liquid Penicillin, the only portion that is used for medicinal purposes. It takes many of the larger flasks to produce the small quantity contained in this bottle.

2. Starting growth of Penicillin. In this small, sterilized and enclosed room, the operator feeds powdered Penicillin culture into the flasks containing a corn starch base mixture. The flasks are then sent to the incubation room.



3. One of the many incubation rooms. Flasks remain here for seven days of incubation to produce the mold growth shown in the first picture. At upper right, outside the incubation chamber is a Brown recording controller that maintains the required constant temperature during incubation.

Penicillin

Production Only Possible with Controlled Temperatures

Penicillin has been called the modern miracle of chemotherapy. Since the news of its discovery was released to the world, just before Pearl Harbor, it has saved thousands of our soldiers' lives and limbs. And, according to medical scientists, its future possibilities in combating infections and infectious diseases are almost unlimited.

In the manufacture of Penicillin on a commercial scale, accurate temperature and humidity control is one of the most vital factors. In fact, technicians say it would be impossible to maintain the rigid standards of quality in the quantities in which it is now being manufactured, without the sensitive and accurate control of temperature and humidity that is made possible by the use of Minneapolis-Honeywell thermostats and Brown precision instruments.

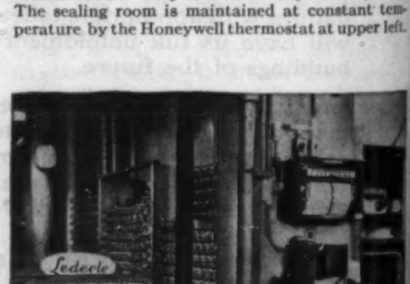
Pictured here are the important steps in the production of Penicillin by one of America's leading biological and pharmaceutical manufacturers — the Lederle Laboratories at Pearl River, New York.

* * *

Minneapolis-Honeywell temperature controls are now busy on thousands of war production jobs. After complete victory they will continue their leadership in the control of all kinds of manufacturing processes where temperature and humidity are vital factors. Brown Instrument Co., Philadelphia, Pa., a subsidiary, and Minneapolis-Honeywell Regulator Co., 2804 Fourth Avenue So., Minneapolis 8, Minn. Branches and distributing offices in all principal cities.

4. Main air conditioning system which supplies conditioned air to the incubation rooms. At right is a Minneapolis-Honeywell thermostat for controlling dewpoint temperatures.

5. Sealing Room, where small bottles of liquid Penicillin are sealed after removal from the refrigeration room. They are now ready for shipment. The sealing room is maintained at constant temperature by the Honeywell thermostat at upper left.



6. The beginning of another cycle. Emptied flasks are brought into this room on a conveyor belt, the flasks are cleaned of mold, washed, sterilized and refilled with the corn starch base solution. Mounted on the wall, over the small table, is a Brown recording potentiometer which accurately records the temperatures maintained during the process of production.

MINNEAPOLIS

Honeywell

CONTROL SYSTEMS

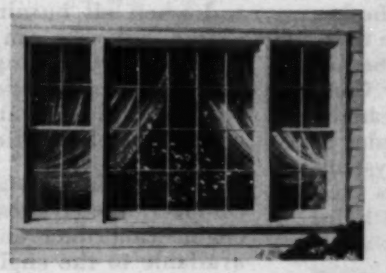
WEATHERTIGHT ?
EASY TO OPERATE ?
EASY TO INSTALL ?
EASY ON THE BUDGET ?
STREAMLINED DESIGN ?
LOW MAINTENANCE ?

You'll Find All the Answers in Curtis Silentite...

● Just *one or two* good features in a window won't be enough for post-war America! Window-conscious home builders will look for windows that satisfy *completely*—on every count. Windows that are weathertight *and* easy to operate. Windows easily installed in any size or type of home and easy on the budget, too. Windows that combine the beauty of streamlined design with low maintenance cost through the years.

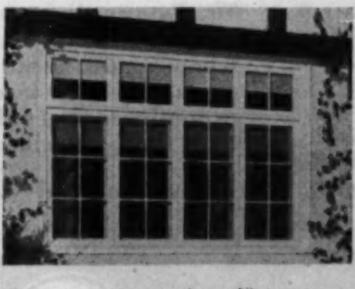
Curtis will have *all* these answers in the famous Silentite window line. For Silentite windows are products of 79 years' experience and scientific research . . . research constantly carried on through the war years. Because Curtis *knows* window production—because Silentite windows represent outstanding improvements in window construction, you can be sure that Curtis will amply meet every post-war need and plan. For complete information on Silentite windows and on Curtis Stock Architectural woodwork—mail the coupon!

A pleasingly modern note is struck by these corner windows, made up of Curtis Silentite double-hung units. Curtis offers you a wide variety of sash styles for any kind of plan.



The slender muntins add a feeling of lightness and grace to this Curtis "picture" window. Several combinations of such fixed-sash units will be available for your choice.

Bay windows create a special character for many a home . . . and are a means of adding extra space, as well. Bays made up of Curtis stock units are moderate in cost, easy to install, easy to operate.



Casement groups such as this are practical from a fuel-saving standpoint when you specify Silentite Casements. For the Silentite Casement is especially designed for weather-tightness.

1866
CURTIS
WOODWORK
SILENTITE
PRE-FIT
the "Insulated" window

CURTIS COMPANIES SERVICE BUREAU
Dept. AR-6W, Curtis Building,
Clinton, Iowa

Gentlemen:
Please send me free literature on Silentite Windows and Curtis Stock Architectural-Woodwork.

Name..

Address..

City.......................... *State*..........

A View

The office of Sullivan A. S. Patorno is one of the leading Consulting Engineering organizations in the country. This office, which handles mechanical and electrical engineering work, have acted as consultants on the following school projects: Kent School Gymnasium, Kent, Conn.; Public School 24 and Public School 24 Annex, both in Valley Stream, Long Island; Nurses' School and Residence, Queens General Hospital, Queens, Long Island. They have acted also as consultants for the New York City Housing Authority, New York State Division of Housing, and the Federal Public Housing Authority, on Fort Greene Houses; Red Hook Houses; Clason Point Houses, Tonawanda Houses, and many War Housing Developments. Among their outstanding projects is Lusk Apartments, New York City's first completely air conditioned apartment building, erected seven years ago and still considered the most advanced apartment building for living comfort.

In October 1942, in these pages, Mr. Patorno, who has specified Petro equipment for many years, made these comments on oil burning equipment: "In the oil heating field, the Petroleum Heat and Power Company have set an enviable example of what can be done in the way of engineering assistance in order to make absolutely sure that their oil burning systems perform a hundred per cent wartime job. This kind of service results in the wisest use of oil and helps increase production all along the line."

Relative to postwar School construction, Mr. Patorno now adds to his thoughts concerning the use of oil: "Schools constructed in the postwar period will be better schools than we have built in the past, taking advantage of all the new equipment and services developed during recent years. The health and welfare of the pupils and teachers will be just as essential in the development of education as are good teaching facilities.

"Environment in the classroom is closely related with proper heating, and thought must be given to provide healthful living conditions for the occupants. With automatic oil heating, labor cost is almost eliminated, and when oil burning equipment is properly engineered, oil cost can be lower than other fuels in many areas. Oil firing, in schools especially, gives the quick response needed for changes in heat demand, and cleanliness is at its maximum with the use of oil and the elimination of ash disposal.

"We recognize the ability of Petro to produce the compact, efficient design of their equipment, and the engineering data and assistance which they make available to the engineering consultants are appreciated by our organization. Needless to say, the owners of Petro equipment and ourselves are well satisfied with the performance of Petro Systems in the Schools and all projects where our office has acted as engineering consultants."

Mr. Patorno is certainly right; puts his point across well! Healthful comfort is, indeed, one of the school's most essential facilities. That's why you find engineers and leading architects setting Petro's properly engineered heating systems at the top of their school specifications.

It's both natural—and logical—to see automatic oil

PETRO

Cuts Steam Costs

# of Postwar School Design Healthful Comfort for Pupil and Teacher To Be Stressed as One of the Most Important Factors

heating advocated by so many leading consultants. You see, they know that for over-all efficiency and economy you can't beat a correctly engineered automatic oil burning system. When it's properly used, oil costs less than any other fuel. There's practically no labor cost. There are no ash handling chores and disposal costs. The fuel storage problem is relatively simple. And, you obtain a quicker responsiveness to swiftly changing weather conditions. In fact, so marked is the preference for automatic oil heat, that a steadily growing number of engineers in all fields —institutions, commercial buildings, homes—urge it as the best.

Today the science of heating a structure, has reached a point where heating costs can be accurately projected. When this is done, Petro Systems get first consideration. Mind you, that's true whether the conditions suggest automatic or semi-automatic operation. Here is where the Petro experience comes in. Any Architect or Engineer who asks can draw upon a wealth of specific data for comparison and study. Petro's Engineering Division will gladly lend a hand in establishing the facts as regards a proposed installation.

Hand in hand with the selection of the correctly engineered Petro Equipment, goes the choice of the right oil. For instance, suppose the decision is to burn the lowest cost "bunker" fuel oil with a fully automatic system. There is convincing evidence that Petro's Thermal Viscosity System, does a job that is unequalled. This system applies a principle instead of just providing an accessory. From warm or cold starts—and through all stages of demand fluctuation —you get constantly correct combustion. And without frequent manual adjustment of valves or controls. Put those two facts together and you get a convincing answer to the "why" of Petro preference wherever it's oil heat. Namely, Petro is the synonym for peak efficiency—fool-proof operation—constant economy.

INDUSTRIAL MODELS — #5 or #6 fuel oil, manual, semi- or automatic operation, 8 sizes to 450 bhp. "Thermal Viscosity" preheating.

DOMESTIC MODELS — #3 or lighter oils, "conversion" and combination-unit types, 7 sizes "Tubular Atomization" (patented).

FULL DATA on Petro Industrial Burners are in Sweet's — or Domestic Engineering — catalog files. Details on Petro Domestic burners available in separate catalog. Copy of either sent gladly on request.

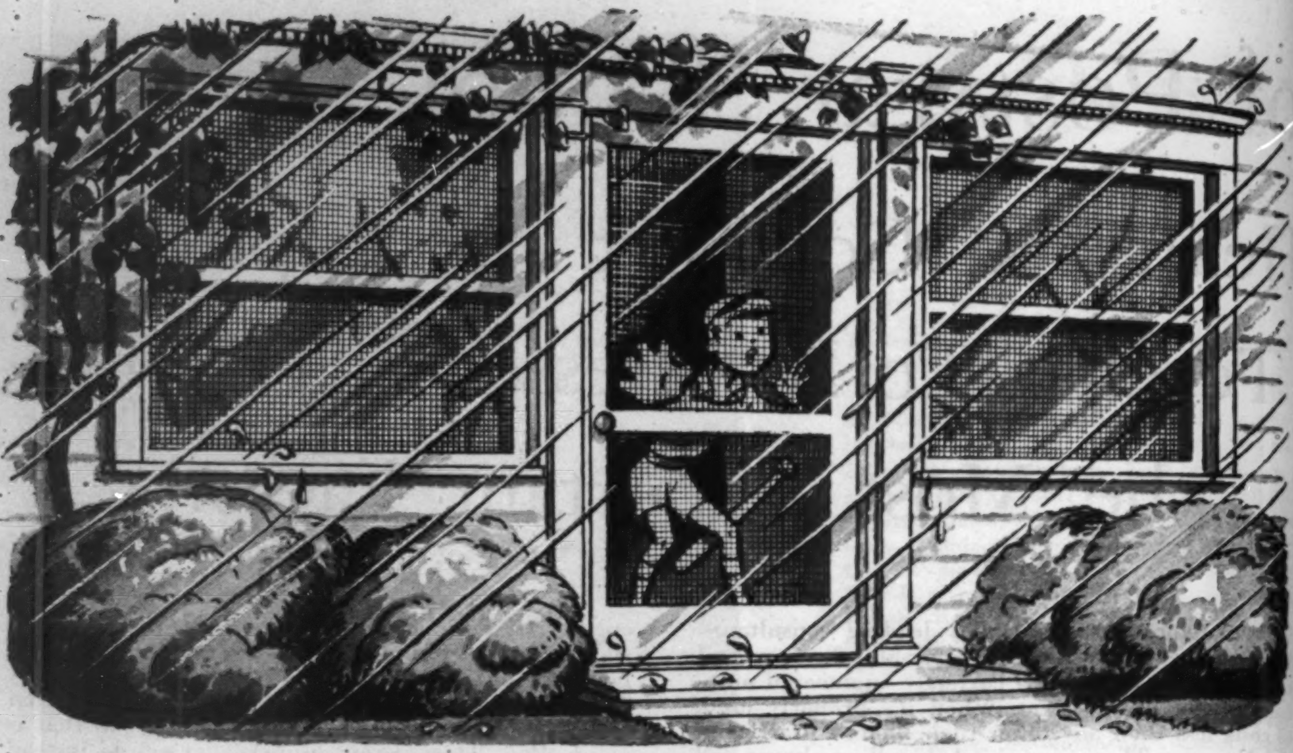
Petroleum Heat and Power Company

STAMFORD, CONNECTICUT

Makers of Good Oil Burning Equipment since 1903

PETRO

Cuts Steam Costs



A Glutton for Punishment

• Unlike old-fashioned type screens, LUMITE, the new plastic screen cloth woven from Saran*, takes a beating—and likes it! Durable—because of its extreme resiliency, LUMITE will not dent or bulge! Long-lasting, because LUMITE will neither rust nor corrode!

Unaffected by smoke, salt air, rain, snow, heat or cold, this revolutionary new plastic screen cloth is non-staining, saves frequent repainting of sills and sidewalls—and never needs painting itself. A simple wipe-off with a damp cloth restores its fresh look, immediately.

LUMITE is a *proven* scientific advance that makes old-fashioned window screening obsolete—lasts longer because it withstands wear from natural causes!

Tested daily by the Armed Forces under every possible climatic condition through actual use, LUMITE is well worth waiting for—and planning for—in the postwar building that's ahead. Your jobber can't ship any LUMITE until after the war, but we will gladly send samples and information, now!

*A product of the Dow Chemical Co.

TESTED IN WAR
READY FOR PEACE

Not just a postwar dream product... millions of feet of LUMITE are now in actual use, protecting the Armed Forces against disease-carrying insects.

- ★ **Will not rust or corrode, long-lasting**
- ★ **Non-staining . . . no streaking of sills or sidewalls**
- ★ **Strong, resilient . . . no dents or bulges**
- ★ **Unaffected by smoke or salt air**
- ★ **Non-inflammable**
- ★ **Will be priced competitively with better grades of wire screen cloth.**

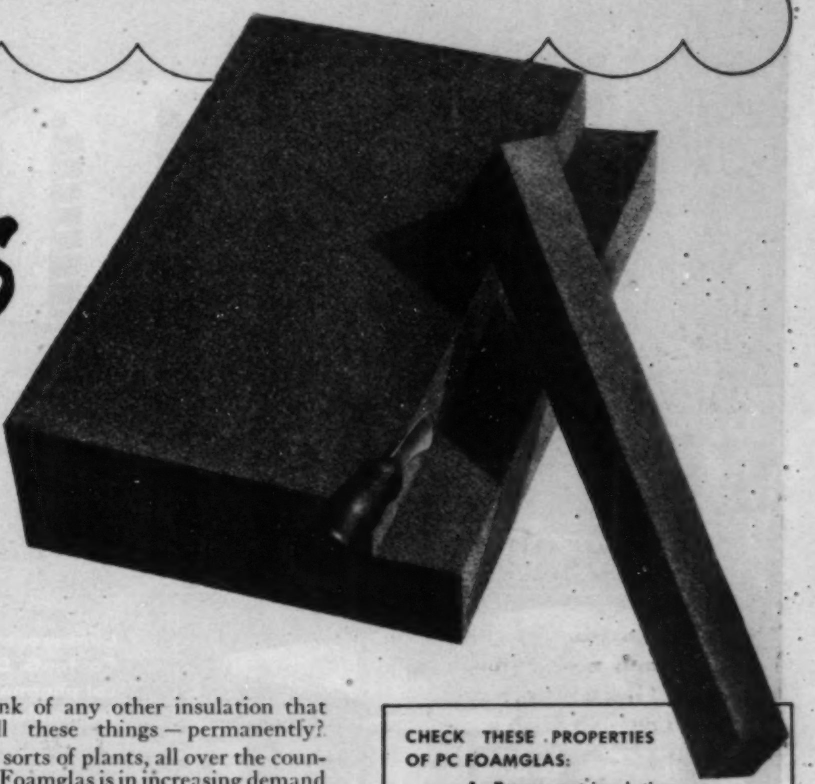
The new plastic insect screen cloth

LUMITE

CHICOPEE MANUFACTURING CORP. Lumite Div. 40 WORTH ST., NEW YORK 13, N. Y.
World's Largest Manufacturer of Plastic Screen Cloth

The Economical Insulation

PC FOAMGLAS



You will find that PC Foamglas can be cut to fit around projections and openings right on the job, with ordinary tools. The big, strong, rigid slabs, conveniently packaged, can be handled and laid quickly and easily.

IN the long run, you will find this cellular glass material the most economical insulation you can use. Why? Because the insulating properties of PC Foamglas are *permanent*.

While the insulating efficiency of many insulation materials deteriorates with age, PC Foamglas goes on year after year without loss of its original insulation value. Being glass, it is impervious to moisture, acid atmospheres, fumes, and vapors. It is verminproof, fireproof.

On roofs and equipment, in floors and walls, PC Foamglas has maintained predetermined temperature and humidity levels. It prevents condensation. Can you think of any other insulation that does all these things—permanently?

In all sorts of plants, all over the country, PC Foamglas is in increasing demand among men who are facing insulating problems. Freedom from repairs and replacement alone is prime proof of its ability to keep insulation costs down.

When you are considering insulation, be sure to check other materials against PC Foamglas. For complete information, just fill in and mail the convenient coupon. We shall be glad to forward free copies of the booklets you select. Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh 22, Pa.

CHECK THESE PROPERTIES OF PC FOAMGLAS:

1. **Permanent insulation**
2. **Vermin- and vaporproof**
3. **Fireproof**
4. **Waterproof**
5. **Light weight**
6. **Easy installation**
7. **Rigid structure**
8. **Economical**

FIRST COST IS LAST COST

AIR SEALED IN GLASS CELLS

· *Also manufacturers of PC Glass Blocks* ·

This concrete floor, insulated with PC Foamglas, prevents heat travel from the room below. A concrete wearing floor will cover the PC Foamglas.

This re-roofing job includes permanent insulation. Roofers have found that they can safely recommend PC Foamglas to the most exacting plant managers for the toughest insulating jobs. PC Foamglas retains its original insulating value—indefinitely.

PC FOAMGLAS *Waterproof Fireproof* **INSULATION**

T. M. REG. U. S. PAT. OFF.

Pittsburgh Corning Corporation
Room 640, 632 Duquesne Way
Pittsburgh 22, Pa.

Dear Sirs:

Roofs______ Walls______ Floors______

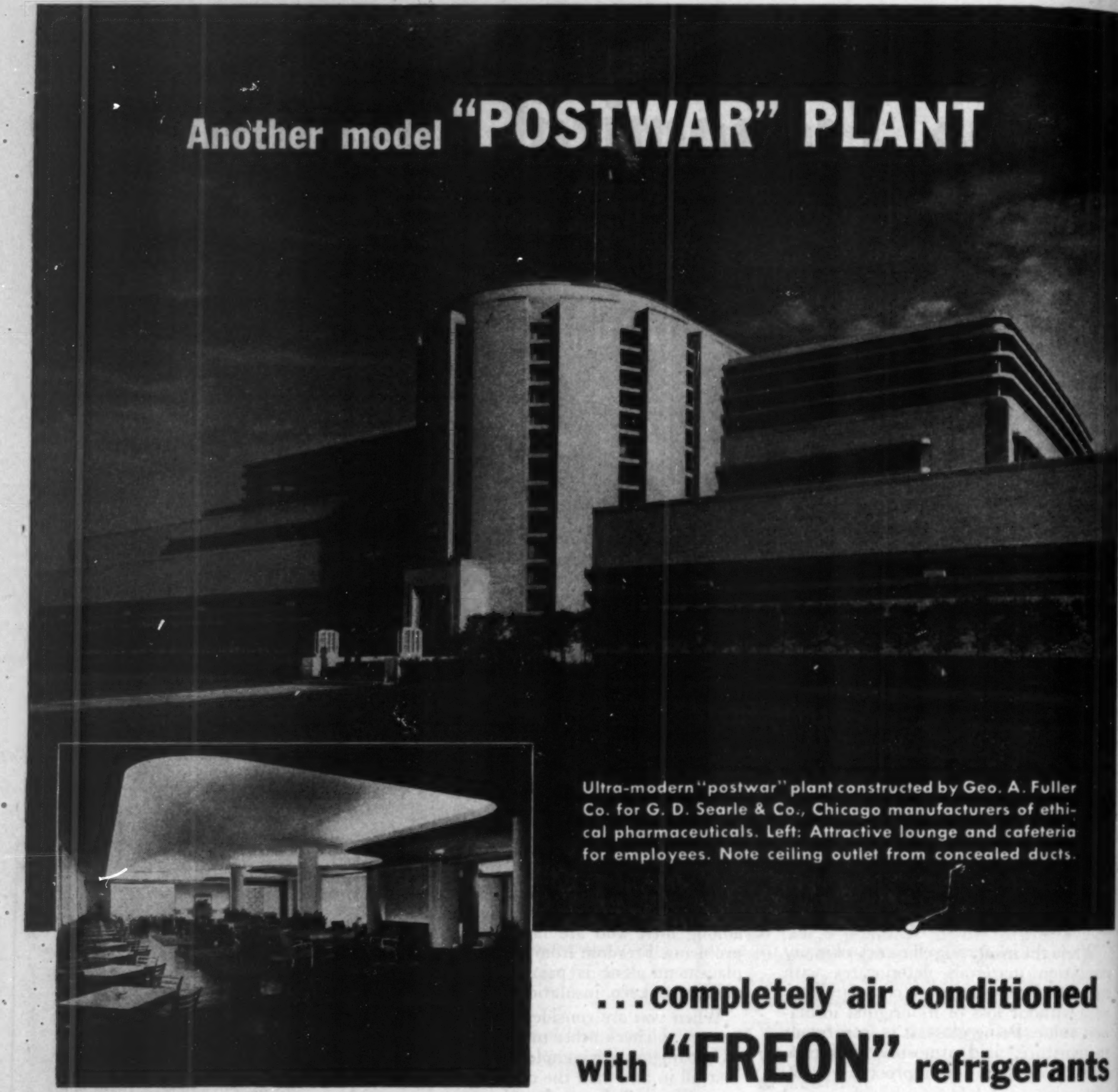
Please send along my *free* copies of the booklets I have checked. It is understood that I incur no obligation.

*Name*______________________________

*Address*____________________________

*City*__________________ *State*________

Another model "POSTWAR" PLANT



Ultra-modern "postwar" plant constructed by Geo. A. Fuller Co. for G. D. Searle & Co., Chicago manufacturers of ethical pharmaceuticals. Left: Attractive lounge and cafeteria for employees. Note ceiling outlet from concealed ducts.

. . . completely air conditioned with "FREON" refrigerants

IN DESIGNING the new laboratories of G. D. Searle & Co. at Chicago, Illinois, Architect Herbert G. Banse was well aware of the benefits of air conditioning.

Almost half the 1,300,000 cubic feet of the structure is air conditioned. A zone system based on the area of outside wall, roof and window exposure is used. Because it is a drug and chemical plant, particular attention has been paid to prevailing winds and the location of fresh air intakes and exhaust ducts.

Separate air conditioning units in the several manufacturing departments, as well as in the office, research and recreational areas, permit flexibility depending on the requirements of these areas. Particular attention has been given to allowance of space for easy accessibility to large assembled units, balancing dampers and duct work to permit later alterations and extensions if required.

In the words of President John G. Searle: "The system has enabled us to produce essential drugs the year round without hindrance by weather conditions of temperature and humidity . . . and employee morale has been maintained at a high level due to the clean, comfortable and pleasant atmosphere in our plant."

Of course, "Freon" refrigerants obviously don't do the whole job. It takes good architectural designing . . . and a thorough understanding of the problem. But equipment designed to utilize "Freon" safe refrigerants does lend assurance that the installation will perform satisfactorily and safely. Why not get complete information about "Freon" safe refrigerants today? Build up your own "postwar" reference file. Write Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington, Delaware.

"Freon" safe refrigerants are widely used in heavy-duty refrigeration and air conditioning systems.

KINETIC

FREON

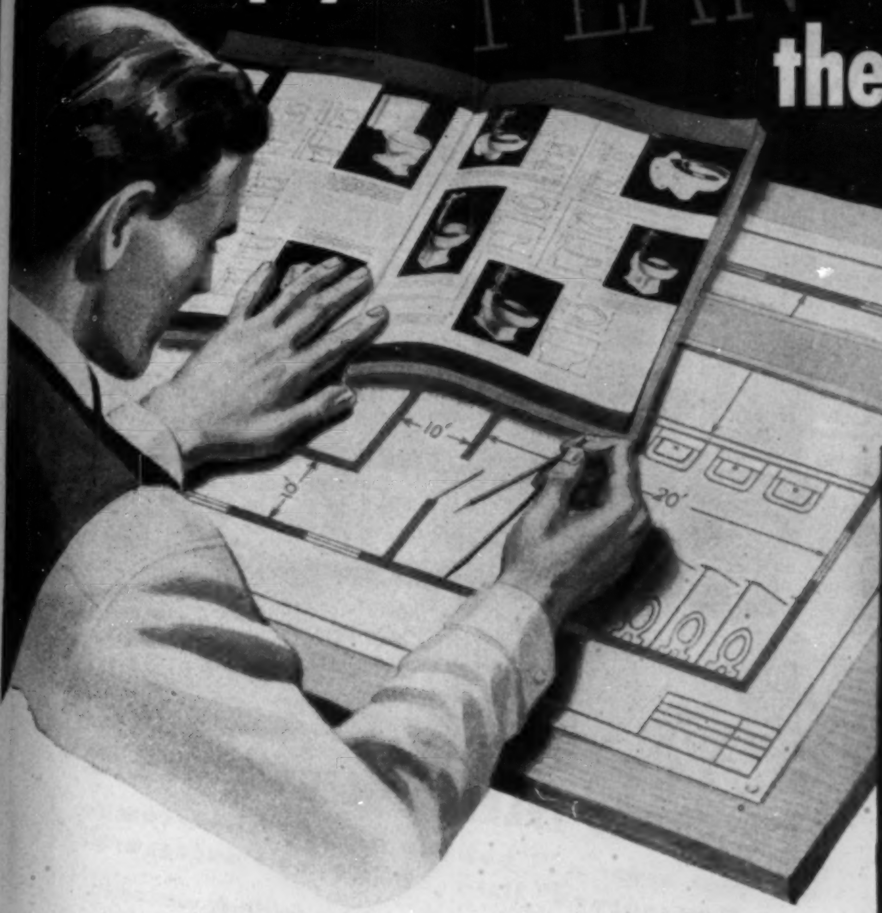
REG. U. S. PAT. OFF.

safe refrigerants

"FREON" IS KINETIC'S REGISTERED TRADE MARK FOR ITS FLUORINE REFRIGERANTS

SUPPORT THE MIGHTY 7TH WAR LOAN . . . BUY BIGGER BONDS

to help you PLAN the plumbing



FIXTURES AVAILABLE NOW

The plumbing fixtures shown here are among those available for today's remodeling and new construction.

Yorkshire Lavatory

Oxford Bathtub

Corwith Fountain

Santon Closet

Correcto Urinal

MUCH of the America of tomorrow is on the drawing boards of architects today. And common to every plan—whether it is for a single family home or a housing project, an industrial plant or public building, a hospital or a school—is the need for adequate sanitary facilities.

To help you in this important phase of your work, Crane has prepared a new basic planning book, titled "Transitional Data on the Crane Plumbing Line." Although this book does not present the Crane line of tomorrow, it is designed to give authoritative dimensional data on that line—permitting you to accurately plan the plumbing for the projects on which you are working.

When production of the new Crane line is possible, architects may be assured of the latest in styling and the same unmatched quality and sturdy reliability that have always been associated with the name of Crane.

If you do not have a copy of "Transitional Data on the Crane Plumbing Line," write for one.

CRANE

90 YEARS OF PROGRESS 1855 1945

CRANE CO., GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5

VALVES • FITTINGS • PIPE • PLUMBING • HEATING • PUMPS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

GET SET...NOW!

for early delivery on . . .

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your order will put you on our "first-come-first-served" list . . . no deposit necessary.

Medart's engineering and planning facilities are available to you now...without obligation. By placing your order now, you will insure yourself earliest possible delivery the moment manpower and materials are available. In accordance with Medart's long standing policy of fairness your order will, of course, be cancellable should later conditions void or alter your requirements.

• 100% MEDART MADE!

Medart Telescopic gym seats are NOT an assembled product. All parts (metal and lumber) are fabricated, finished, assembled (and tested!) at the Medart Plant. Hundreds of Medart installations all over the country attest the long life and safety of Medart installations.

COMPACT! TAKES UP ONLY 32 INCHES of FLOOR SPACE WHEN "TELESCOPED!"

Easy to open and close due to Medart "floating locomotion." Two types: wall attached or moveable. Write for descriptive catalogue.

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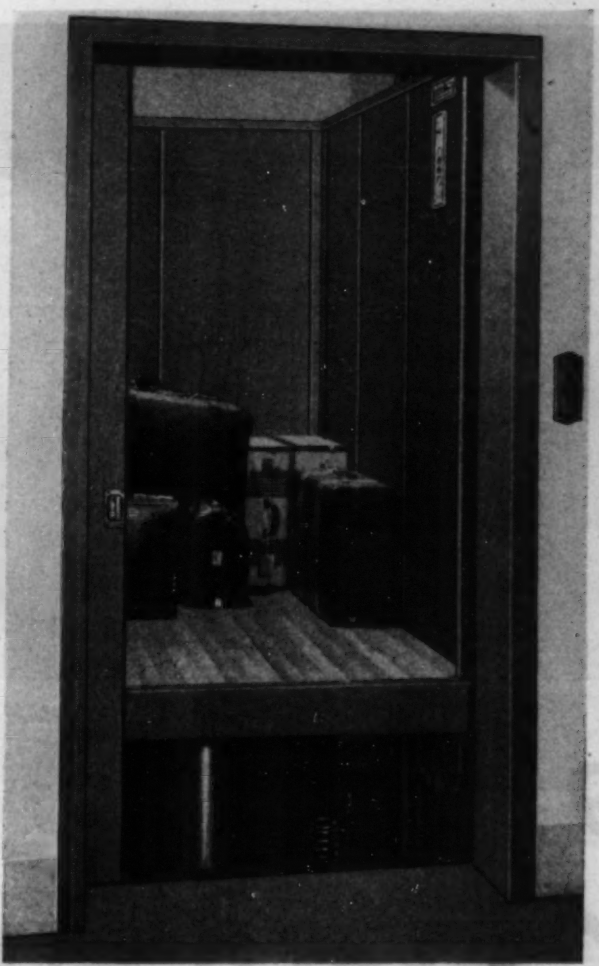
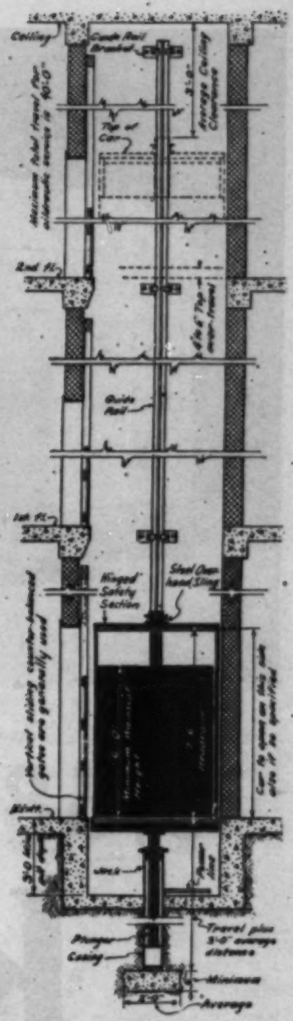
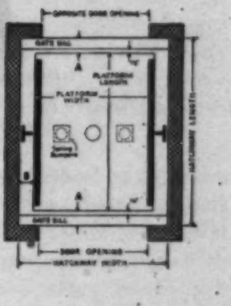
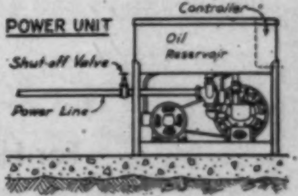



Ceiling
Guide Rail Bracket
Maximum total travel for oildraulic service is 40'-0"
3'-0" Average Ceiling Clearance
Top of Car
2nd Fl.
Top over-travel
Guide Rail
1st Fl.
Hinged Safety Section
Steel Overhead Sling
Vertical sliding counter-balanced gates are generally used
Minimum Headroom Height
Car to open on this side if so specified
Botm.
Jack
Plunger
Casing
Travel plus 3'-0" average distance
Minimum
Average


OPPOSITE DOOR OPENING
GATE SILL
PLATFORM LENGTH
PLATFORM WIDTH
HATCHWAY LENGTH
GATE SILL
DOOR OPENING
HATCHWAY WIDTH

POWER UNIT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The Elevator that's Pushed Up

REQUIRES NO PENTHOUSE, NO HEAVY SHAFTWAY STRUCTURE, NO SPECIAL MACHINE ROOM

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Since this elevator is pushed up from below (not pulled from above) there's no need for costly, unsightly penthouses or for heavy load-bearing supporting columns. And no special machine room is required with an Oildraulic Elevator . . . the compact electric hydraulic power unit can be located in any convenient space.

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This modern elevator (for freight or passenger service) is raised by a relatively simple hydraulic transmission system, powered by an electric oil pumping mechanism—so initial cost is low. Operating cost is low too . . . power used only when elevator rises, descent by gravity. And there's little maintenance expense, even after years of service, due to the simple mechanism and the operation of moving parts in a bath of oil.

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The operation of the Oildraulic Elevator is hydraulically smooth . . . there are no abrupt starts or stops. Landing stops are accurate to within ¼ inch, plus or minus—and this is most important on freight elevators because of the increased use of powered vehicles for material handling.

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Whenever you have an elevator problem involving a rise of 40 feet or less, Rotary can help you. The coupon will bring you complete information and Architect's Preliminary Layout Data.

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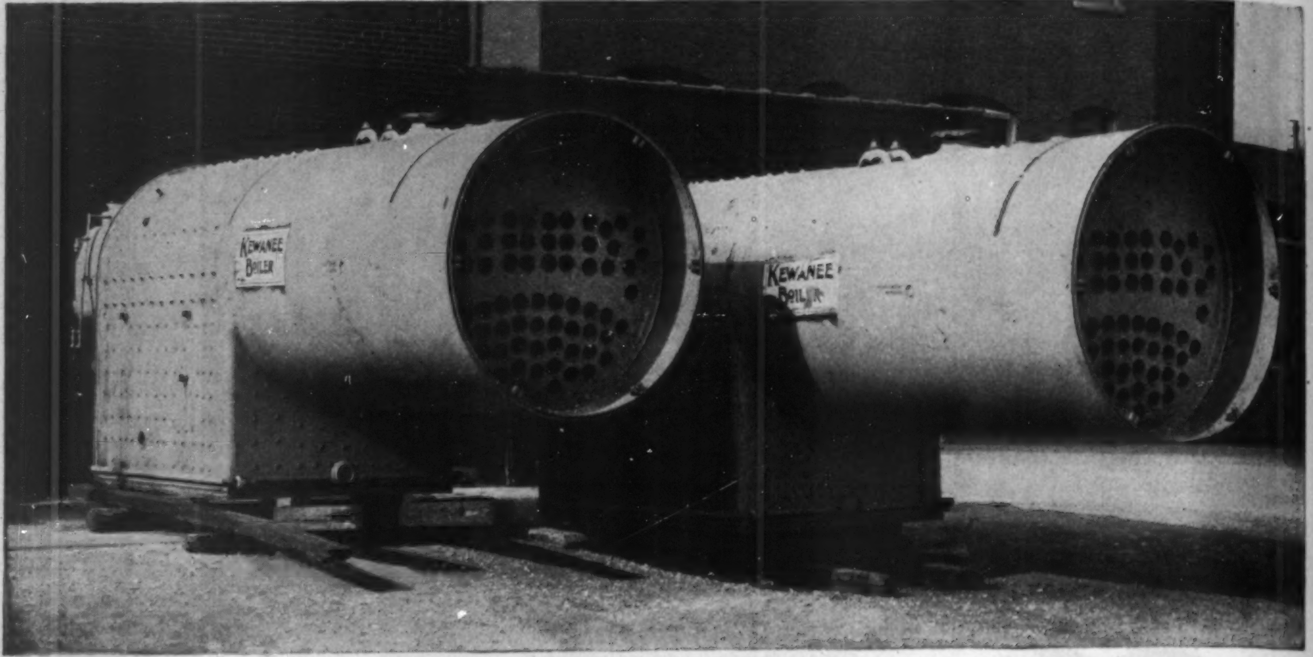

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Another "Robert R. Meyer Hotel," with 450 rooms, opened in 1911 in the heart of Baltimore's financial district. It is warm with Dixie-land hospitality, enhanced by the use of Fabron in its guest rooms, catering to the Army, Navy and wartime industries.

With confidence, include FABRON in the next set of specifications you write for an institutional building for it meets the test every architect imposes on a new construction development: Has it proved its usefulness and economy? FABRON **has** proved its usefulness and soundness in more than 1000 hospitals, hotels, religious institutions, schools, colleges, apartment houses and office buildings — structures where a wall finish gets the hardest wear.

For years, the best method of protecting interior plaster surfaces and adding color was a double operation, (1) stretching canvas on walls and ceilings; (2) painting over it. FABRON is new only in its combination of these time-tested methods in one operation, in a superior form. It is both a structural and a decorative agent.

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This modern, six-story building of the Missouri Pacific Hospital opened in 1923, with a capacity of 300 beds. An outgrowth of two other buildings used in St. Louis since 1872, under the operation of the Missouri Pacific Railroad it is the second oldest railroad hospital in the world. Fabron is used on walls and ceilings throughout the building.

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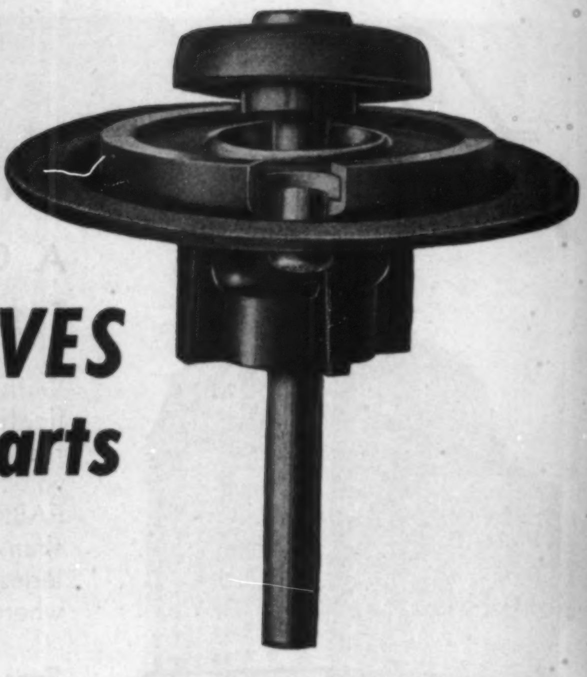
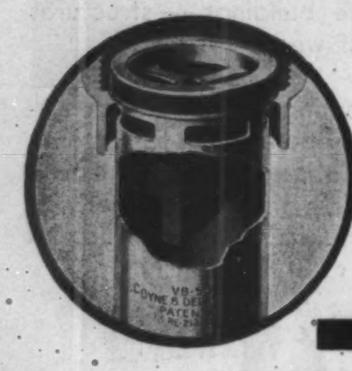


DELANY FLUSH VALVES
Have Only 6 Moving Parts



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ASSURING THE SIMPLEST, MOST EFFICIENT, AND EASIEST TO MAINTAIN FLUSHOMETER ASSEMBLY — with full protection against back syphonage and resulting water contamination.

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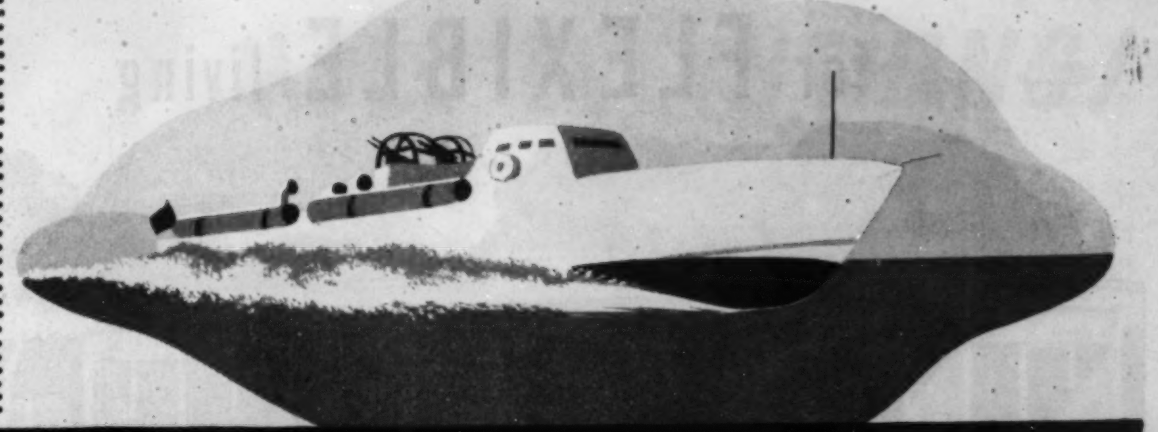
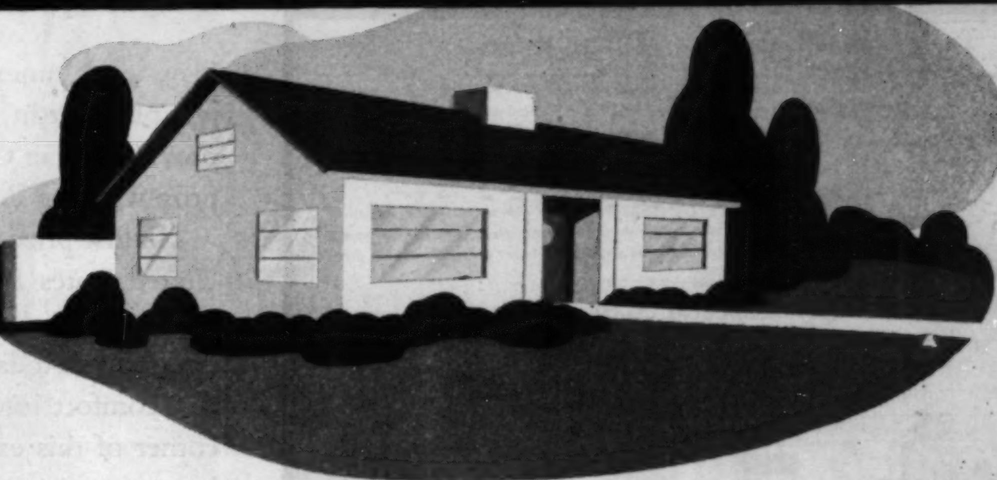


Whether you build PT Boats or Prefab Houses . . .



..........*your* product can be improved with a Kimpreg* Surface

A revolutionary new alloy-like material is achieved by fusing to plywood's surface a cured plastic skin of KIMPREG. This resultant material is not a plywood in the ordinary sense, not a conventional plastic laminate. It is a brand new, better structural medium with countless applications in many products—including, very probably, those *you* plan for post-war production.

With KIMPREG, plywood is converted into an improved substance which can be machined, formed and fastened like ordinary wood—yet has a plastic's smooth, tough surface and beautiful, permanent, paintless finish.

KIMPREG adds the following advantages to plywood: 1) increases durability and flexural strength; 2) provides resistance to moisture and vapor; 3) armor-plates against extreme abrasion; 4) diminishes grain-raising effects; 5) makes the material scuffproof, splinterproof, snag-resistant; 6) affords a stainproof, washable, "wipe clean" surface; 7) creates resistance to chemical action, decay, temperature-extremes, fire, vermin, and mold. Moreover, it is warm to the touch, does not have the chill "feel" of metal surfaces.

Today all KIMPREG is required for military needs, ranging from airborne "prefab" huts to glass-smooth tables for packing parachutes without snagging. Hence, the wartime color of KIMPREG is a soldierly olive-drab. Post-war, however, it will be offered in a variety of appealing hues.

Now is the time to investigate the possibilities of KIMPREG-surfaced materials for your *peacetime* requirements.

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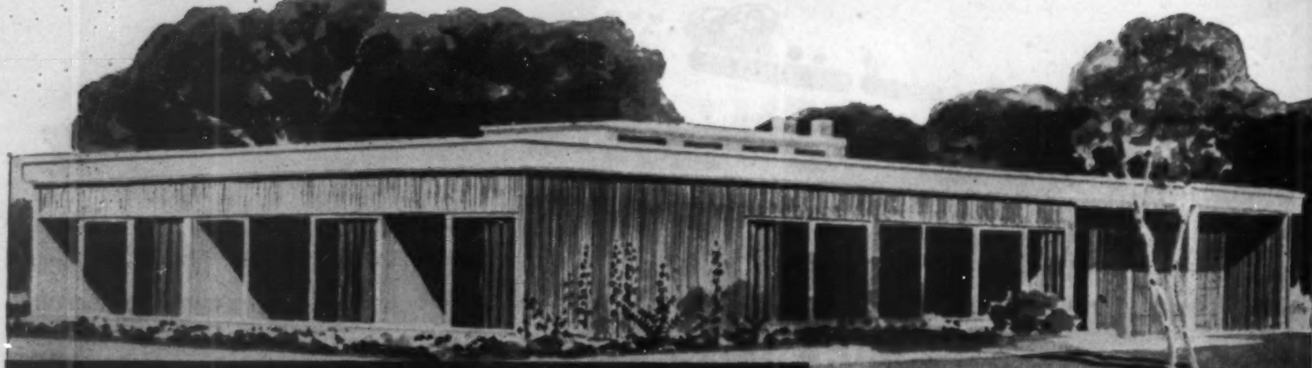
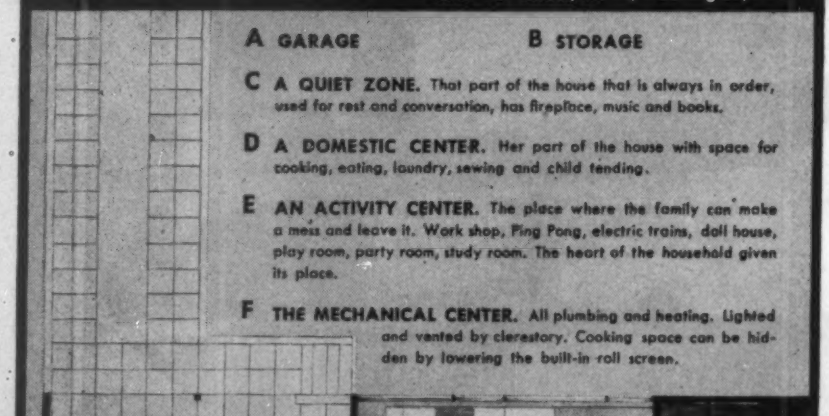
A Prize-Winning Plywood House for FLEXIBLE living



First Prize Design by Mr. Charles D. Wiley, 2023 "O" Street, N. W., Washington, D. C.



A GARAGE

B STORAGE

C A QUIET ZONE. That part of the house that is always in order, used for rest and conversation, has fireplace, music and books.

D A DOMESTIC CENTER. Her part of the house with space for cooking, eating, laundry, sewing and child tending.

E AN ACTIVITY CENTER. The place where the family can make a mess and leave it. Work shop, Ping Pong, electric trains, doll house, play room, party room, study room. The heart of the household given its place.

F THE MECHANICAL CENTER. All plumbing and heating. Lighted and vented by clerestory. Cooking space can be hidden by lowering the built-in roll screen.

G A FLEXIBLE SPACE FOR SLEEPING Changeable in size and number by moving the cabinet separators. The guest room can be reduced to a storage closet and the other bedrooms increased.

H A SUNKEN TERRACE provides privacy and protection from weather.

Play, work, unexpected guests or just plain settin' . . . all are amply provided for in Charles D. Wiley's prize-winning design.

His first-prize plan, in the recent United States Plywood—"Arts & Architecture" Small Home Competition, put today's desire for carefree comfort into every nook and corner of this extremely "livable" house.

Mr. Wiley took full advantage of plywood's ability to combine *beauty* with *utility*.

Among the many applications of plywood in this home are waterproof exterior Weldwood, plywood sheathing for sub-floors and ceilings, and Weldwood hardwood interior paneling.

Complete details of this and other winning designs are available upon request.

WELDWOOD Plywood

Weldwood Plywood and Plywood Products are manufactured and marketed by

UNITED STATES PLYWOOD CORPORATION
New York, N. Y.

THE MENGEL COMPANY
Incorporated
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Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Newark, New York, Oakland, Philadelphia, Pittsburgh, Rochester, San Francisco, Seattle. Also U.S.-Mengel Plywoods, Inc., distributing units at Atlanta, Jacksonville, Louisville, New Orleans. Send inquiries to nearest point.

Weldwood

Plastics and Wood
Welded for Good

Waterproof Weldwood, so marked, is bonded with phenol formaldehyde synthetic resin. Other **types** *of water-resistant Weldwood are manufactured with extended urea resins and other approved bonding agents.*

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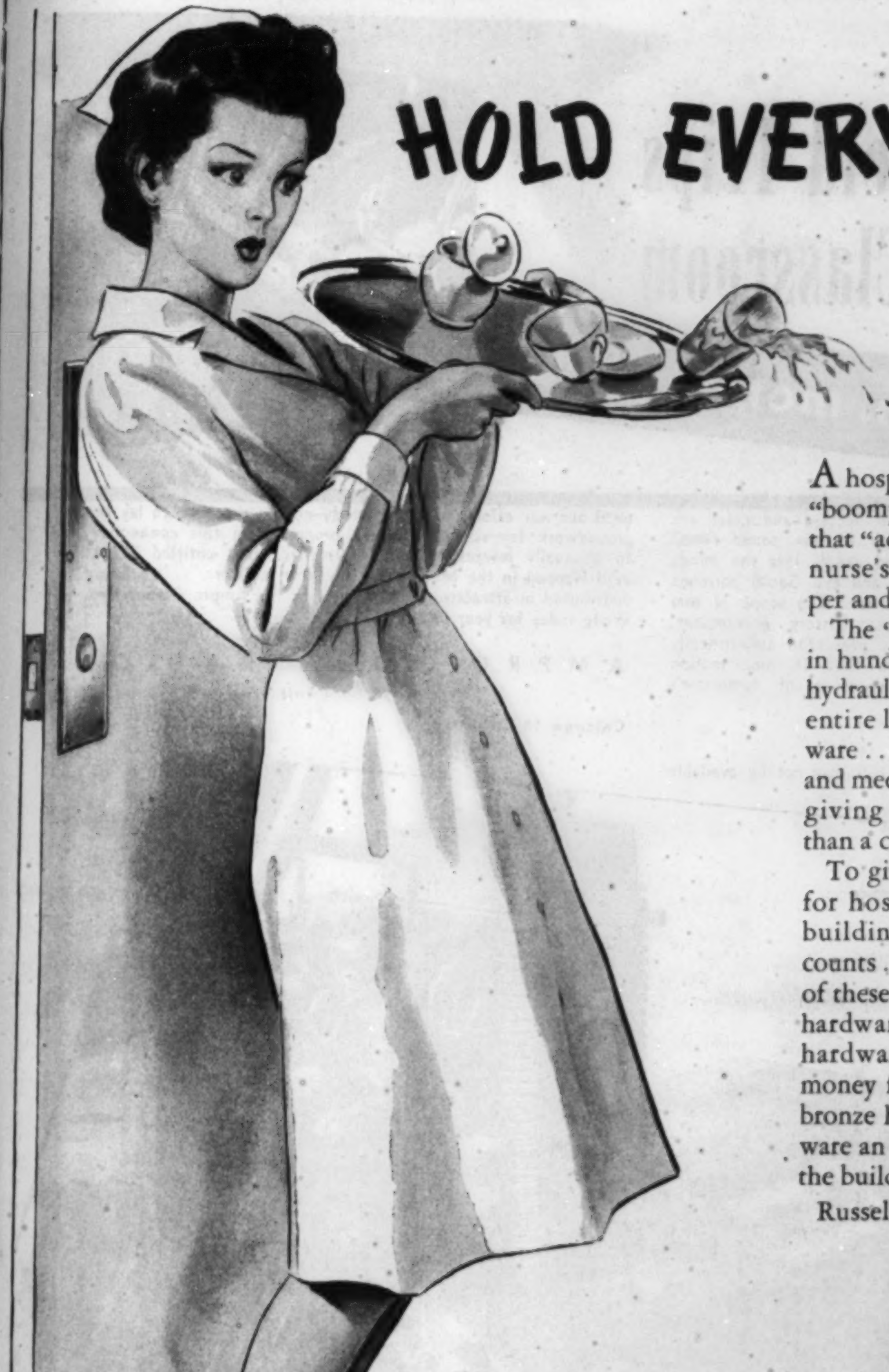
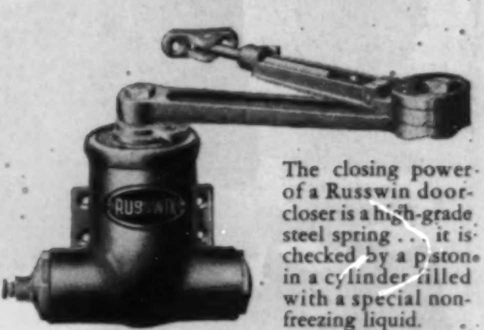


A hospital corridor is no place to play "boomps-a-daisy" . . . for door closers that "act up" can be very upsetting to a nurse's tray – not to mention her temper and the patients' nerves. . . .

The "cure" for making doors docile in hundreds of hospitals is the Russwin hydraulic door-closer. It's typical of the entire line of Russwin builders' hardware . . . hardware of attractive design and mechanical excellence that has been giving outstanding service for more than a century.

To give lasting satisfaction, hardware for hospitals, like hardware for any building, must measure up on two counts . . . utility and design. Neither of these can be expected from inferior hardware made necessary by a skimpy hardware allowance. For little extra money first quality Russwin brass or bronze hardware will make the hardware an asset rather than an eyesore to the buildings you design and build.

Russell & Erwin Manufacturing Co.
New Britain, Conn.



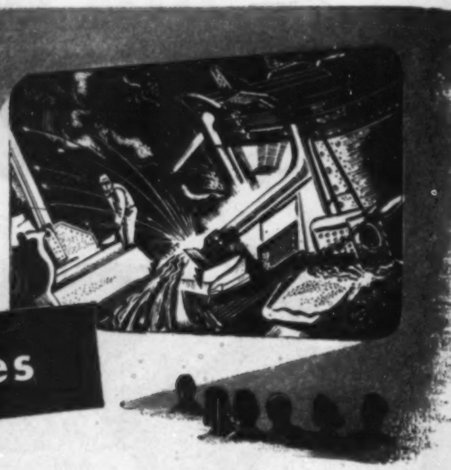
The closing power of a Russwin door-closer is a high-grade steel spring . . . it is checked by a piston in a cylinder filled with a special non-freezing liquid.

FOR ENDURANCE - - SPECIFY WROUGHT OR CAST BRASS AND BRONZE

FOR DESIGN AND WORKMANSHIP . . . SPECIFY

SINCE 1839
RUSSWIN
DISTINCTIVE HARDWARE

Continuous Field Trips Right in the Classroom



with 16 mm. motion pictures

New living, moving worlds of sound, motion and color are brought to our very classrooms through 16 mm. sound films! Vivid and exact impressions are etched deeply into the minds of our students through *both* the ear and eye. Social horizons are widened without leaving the classroom. The scope of this unique type of "field trip" is limitless. History, government, industry, human relationships . . . are presented authentically and dramatically! Educators recognize that 16 mm. motion pictures are essential to the development of tomorrow's CITIZEN OF THE WORLD.

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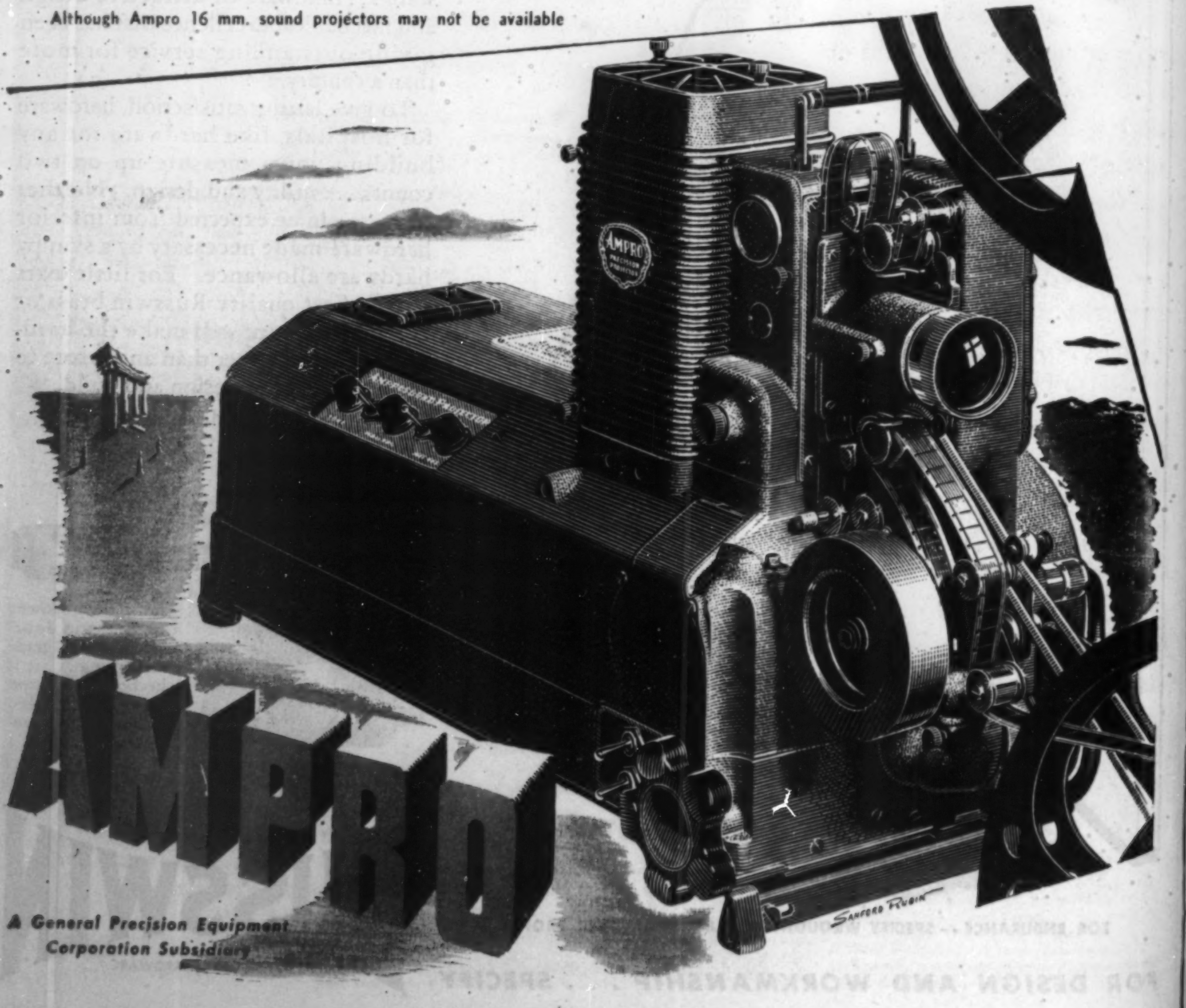
Although Ampro 16 mm. sound projectors may not be available until our war efforts are completed—now is the time to lay the groundwork for visual education programs. In this connection, an unusually interesting and informative story entitled "What Will Happen in the Movies the Day War is Over . . ." is being distributed in attractive booklet form by the Ampro Corporation. Write today for your FREE copy.

AMPRO CORPORATION

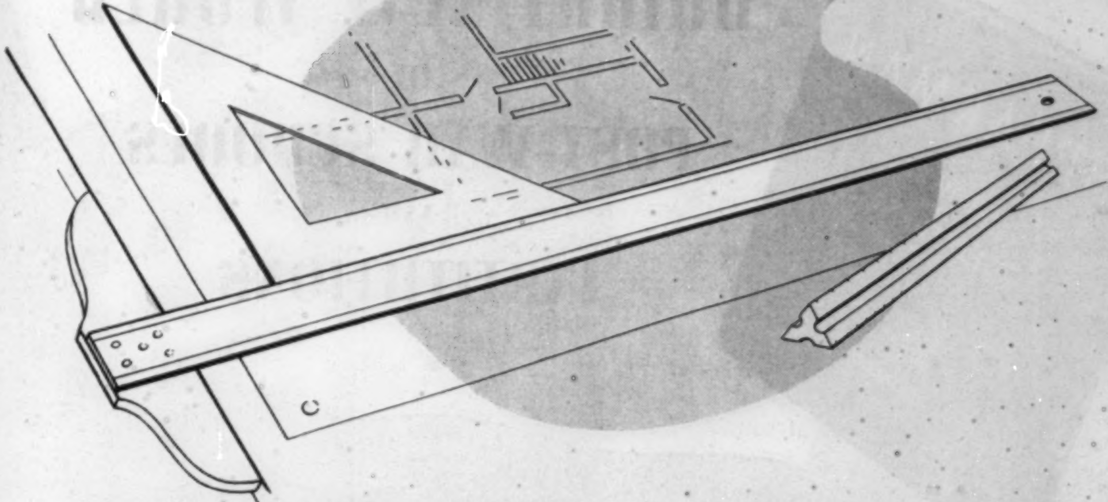
Precision Ciné Equipment

Chicago 18, Illinois



A General Precision Equipment Corporation Subsidiary

Specify
PLASTIC-FINISHED
Marlite

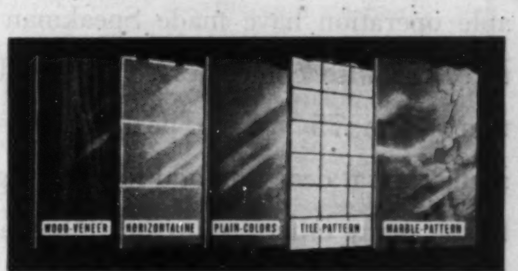


for MARLITE Always "Measures Up"

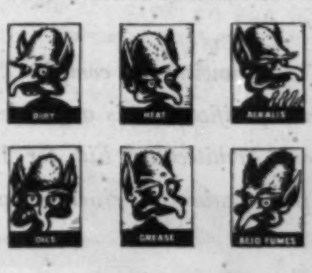
By any standard, any check, you'll find that permanently beautiful plastic-finished Marlite fulfills your needs . . . your clients' expectations on all types of interior installations. Marlite is engineered to increase utility and reduce costs right down the line.

On new construction or modernization, large, wall-size panels make for efficient installation, with regular carpenter tools; the high-heat-bake finish (pioneered by Marlite) assures year-after-year-reductions of maintenance time and cost . . . entirely eliminates costly, bothersome redecorating for your clients.

And, equally important from your standpoint, in offering a wide variety of colors and patterns . . . in its extreme flexibility and adaptability to all types of rooms in all types of building, Marlite allows full freedom of architectural ingenuity. Learn more about Marlite—the "engineered to endure" wall paneling. Write today for new full-color folders covering the specific type of buildings in which you're interested. You'll find them an invaluable ally in your planning . . . and they're yours for the asking.



Modern in conception, Marlite wall and ceiling paneling results in year-in, year-out client satisfaction.



Marlite's impervious to their damaging attacks. Delete Blurmites* from your specifications . . . specify Marlite!

**Blurmites—destructive agents, harmful to the finish of many wall, ceiling, and counter surfaces.*

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MARSH WALL PRODUCTS, Inc.
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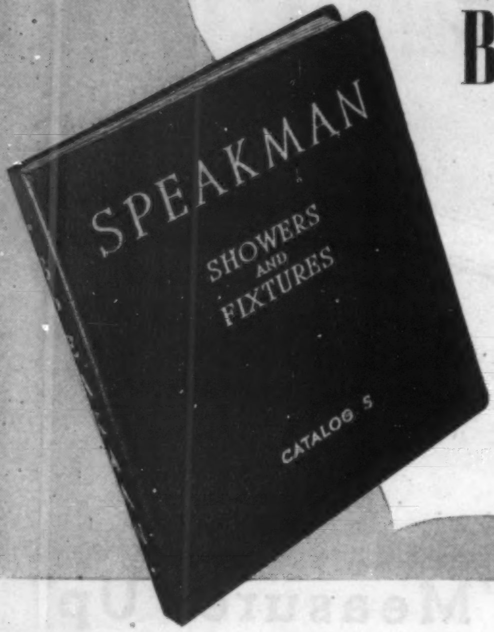
duty-ful

PLASTIC-FINISHED WALL PANELS • FOR CREATING BEAUTIFUL INTERIORS



FOR THE BRIGHT NEW WORLD OF POST-WAR SCHOOLS AND INSTITUTIONS

Rugged construction, precise engineering, and dependable operation have made Speakman showers and fixtures the wise choice for schools and institutions. For more than 75 years, Speakman has kept pace with architectural design to add long-lasting good appearance to the many other features of these products.

If you are planning school or institution work, it will pay you to specify Speakman showers and fixtures *for the long run.*

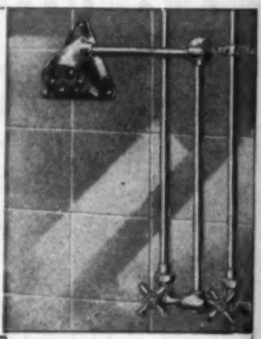
Catalogue "S" showing the complete Speakman line for peacetime specifications is available upon your request. Sweet's Architectural File for 1945 contains a condensed presentation of principal Speakman items.

SPEAKMAN COMPANY, WILMINGTON 99, DELAWARE

SPEAKMAN

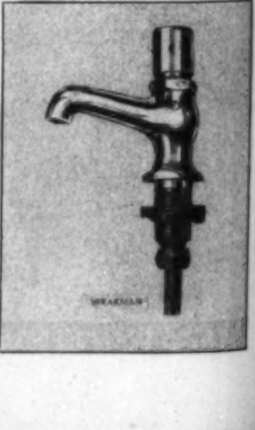
1869-1945

SHOWERS AND FIXTURES



S-1170
EXPOSED TWO-VALVE SHOWER
(Commander Trim)
Features self-cleaning Any-stream shower head. All valve wearing parts are renewable. Valve seats and washer retaining screws are monel metal.

K-9000 BSP
SI-FLO FLUSH VALVE
Silent in operation. Low installation cost. Minimum maintenance cost.



S-4320
PUSH-BUTTON FAUCET
Saves water, self-metering. Non-hammering, non-clogging, non-dripping. External adjustment to control water discharge.

HOW TO MAKE A WALL PAY RENT!

THIS is the Emory Roth apartment building in New York. It was built just before the war. And the architect saved as much as 7% in space—enough for 260 extra rooms. How? By using the Gold Bond 2″ Solid Partition System with its special adjustable base which simplifies installation and speeds completion.

All component parts of this system are Gold Bond Metal Products, designed and precision-made for quick accurate assembly on the job. When finished with fireproof gypsum plaster, the resulting wall is extremely durable with a 1-hour fire rating. Besides saving space (2″ thick as against the usual 4″ to 6″ wall), this system is crack-resistant and with a noise reduction factor of 39 decibels, it effectively cuts sound transmission from room to room.

The Gold Bond 2″ Solid Partition System will be available again as soon as our metal lath plant is released from its present vital assignment of making metal landing mats for portable airfields. Full detailed drawings and specifications of this system are given in our section in the 1945 Sweet's, together with a description of the complete line of over 150 guaranteed Gold Bond Building Products.

BUILD BETTER WITH GOLD BOND

Wallboard • Lath • Plaster • Lime • Metal Products • Wall Paint • Insulation • Sound Control

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"What's the matter with HER . . . did she get a raise?"

"No, they just gave her the office that has Columbia Window Shades!"

That's the kind of "lift" our handsome, easy-to-handle window coverings always used to give . . . and will again, as soon as normal production is resumed.

Right now, your buildings may have to get along with present window shades or Venetian blinds, since stock is limited. But soon, we hope, you'll be able to get the same fine-quality window coverings Columbia is known for. Plus that "service" touch our hand-picked dealers know how to give so well. You can always count on them for expert advice and help.

See Sweet's Architectural Catalogue for more complete information on Columbia products.

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AND VENETIAN BLINDS

THE COLUMBIA MILLS, INC. • 225 FIFTH AVENUE, NEW YORK 10, N. Y.

$41,641,116 in new home construction . . . since 1938!

That's the record of J. Fletcher Lankton . . .

and John N. Ziegle . . . . .

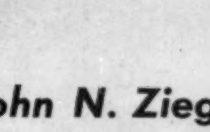
Peoria, Ill., architects . . . .

Who Heartily Endorse the Approved Insulite Wall of Protection

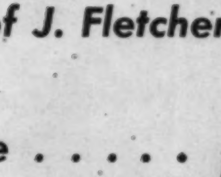
DOUBLE INSULATION *plus* VAPOR CONTROL

That's What the Approved Insulite Wall of Protection Gives You

On outer-walls, Insulite Bildrite Sheathing builds a wind - proofed, weather - tight wall of high insulation efficiency, superior bracing strength, a wall free from open cracks and knotholes.



On inner-walls, Insulite Sealed Lok-Joint Lath builds a second wall of insulation, a rigid plastering surface. Lath marks are eliminated, plaster cracks reduced to a minimum.



Lok-Joint Lath, with asphalt barrier against the studs, retards vapor travel. Bildrite Sheathing, being permeable to vapor, permits what vapor escapes the barrier to pass outside.

A home designed by Lankton and Ziegle, located in suburban Peoria

SINCE 1938, architects Lankton and Ziegle have designed more than 10,878 dwelling units, almost all of them emergency housing in war work centers. Such a record is a remarkable tribute to their ability, which has gained them national recognition.

In addition to war housing projects, they have designed over eight hundred "custom built" houses for private clients during the same period.

"We specify and recommend the Approved Insulite Wall of Protection," they say. "Sound construction begins in the walls of a home. If you haven't a wall that is soundly built, with protection against the elements, you haven't a well-built house. The Insulite Wall of Protection not only builds a stronger wall, but also a wall of effective insulation, and a wall that will never harbor moisture within it. We most heartily recommend the Approved Insulite Wall of Protection."

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Smoke

HAS TO BE MAGNIFIED 40,000 TIMES TO LOOK LIKE THIS:

. . . YET SMOKE AND OTHER FRACTIONAL MICRON-SIZE PARTICLES ARE REMOVED BY THE ELECTRO-MATIC WHICH PROVIDES SUPER-CLEAN AIR!

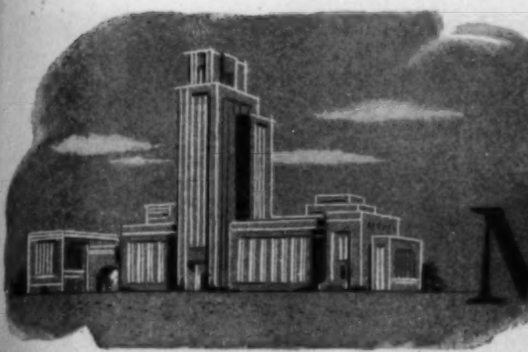
Only the new electronic microscopes, will show all the particles of dust that the Electro-Matic Air Filter will remove. By first giving dust particles an electrostatic charge, then attracting them electrically to viscous surfaces, the Electro-Matic makes possible a degree of cleanliness in plant atmospheres that is unapproachable by other means. In addition, this equipment is rugged, automatic and self-cleaning (an exclusive AAF development) assuring continuous operation at peak efficiency.

Super-clean air for commercial and industrial concerns is guaranteed by the Electro-Matic

The use of filtered air to protect the health and comfort of employees is not just altruistic but a sound business investment. A large industrial insurance company estimates the time lost by employees due to colds and other dust borne respiratory reasons is costing business millions of dollars each year. This does not take into consideration the indirect losses resulting from production slow down, costly mistakes and the unavoidable waste due to inexperienced operators replacing absent key workers. Nearly every type of industrial plant and commercial concern is represented among the users of AAF equipment. For complete information on the Electro-Matic Air Filter send for Bulletin 250-D.

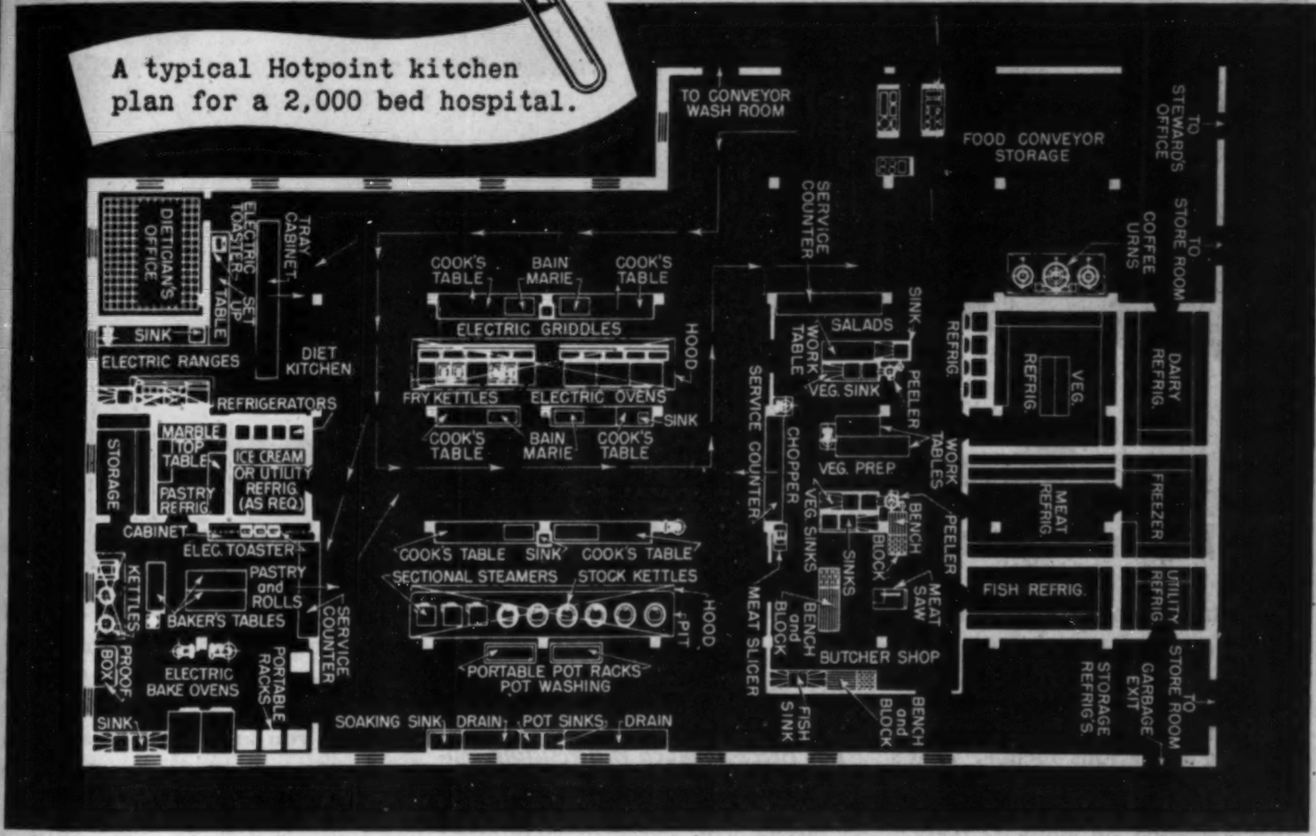
AMERICAN AIR FILTER COMPANY, INC.
Incorporated
389 Central Avenue LOUISVILLE 8, KY.
In Canada: Darling Brothers, Ltd., Montreal, P. Q.

AAF ELECTRO-MATIC THE SELF CLEANING ELECTRONIC AIR FILTER



Designing a Modern Hospital?

—LET HOTPOINT-EDISON HELP YOU WITH THE KITCHEN



A typical Hotpoint kitchen plan for a 2,000 bed hospital.

TO CONVEYOR WASH ROOM
FOOD CONVEYOR STORAGE
TO STEWARD'S OFFICE
TO STORE ROOM
COFFEE URNS
SERVICE COUNTER
DIETICIAN'S OFFICE
ELECTRIC TOASTER
SET UP TABLE
TRAY CABINET
SINK
ELECTRIC RANGES
DIET KITCHEN
REFRIGERATORS
COOK'S TABLE
BAIN MARIE
COOK'S TABLE
ELECTRIC GRIDDLES
HOOD
FRY KETTLES
ELECTRIC OVENS
SINK
COOK'S TABLE
BAIN MARIE
COOK'S TABLE
SALADS
SINK
WORK TABLE
VEG. SINK
PEELER
REFRIG.
REFRIG.
VEG.
DAIRY REFRIG.
STORAGE
MARBLE TOP TABLE
ICE CREAM OR UTILITY REFRIG. (AS REQ.)
PASTRY REFRIG.
CABINET
ELEC. TOASTER
PASTRY and ROLLS
KETTLES
BAKER'S TABLES
SERVICE COUNTER
PROOF BOX
ELECTRIC BAKE OVENS
PORTABLE RACKS
SINK
SERVICE COUNTER
CHOPPER
VEG. PREP
WORK TABLES
VEG. SINKS
BENCH BLOCK
PEELER
MEAT REFRIG.
FREEZER
COOK'S TABLE
SINK
COOK'S TABLE
SECTIONAL STEAMERS
STOCK KETTLES
HOOD
PIT
PORTABLE POT RACKS
POT WASHING
SOAKING SINK
DRAIN
POT SINKS
DRAIN
SINKS
MEAT SAW
FISH REFRIG.
UTILITY REFRIG.
MEAT SLICER
BENCH and BLOCK
BENCH and BLOCK
BUTCHER SHOP
FISH SINK
BENCH and BLOCK
STORAGE REFRIG'S.
GARBAGE EXIT
TO STORE ROOM

IN planning a hospital that will be a leader in modern design, why not call on Hotpoint-Edison to help you install an up-to-date all-electric kitchen?

●● *The trend is definitely favoring all-electric equipment for mass-feeding kitchens. Compactness, economy and safety are only a few of the advantages of cooking with Hotpoint equipment.*

● Greater convenience and speedier food preparation, because electric kitchens can be placed without old heating and ventilation taboos.

●● *Hotpoint specialists, with years of successful experience, are ready to co-operate with you in planning functional all-electric kitchens.*

Edison General Electric Appliance Co., Inc.
5625 West Taylor Street, Chicago 44, Ill.

●● *Recent regulations permit manufacture of a limited quantity of equipment for essential civilian use. Your clients may be eligible now to install all-electric Hotpoint-Edison kitchen equipment. Consult your local distributor or write us.*

Hotpoint Dependability
Assured by 40 Years Experience

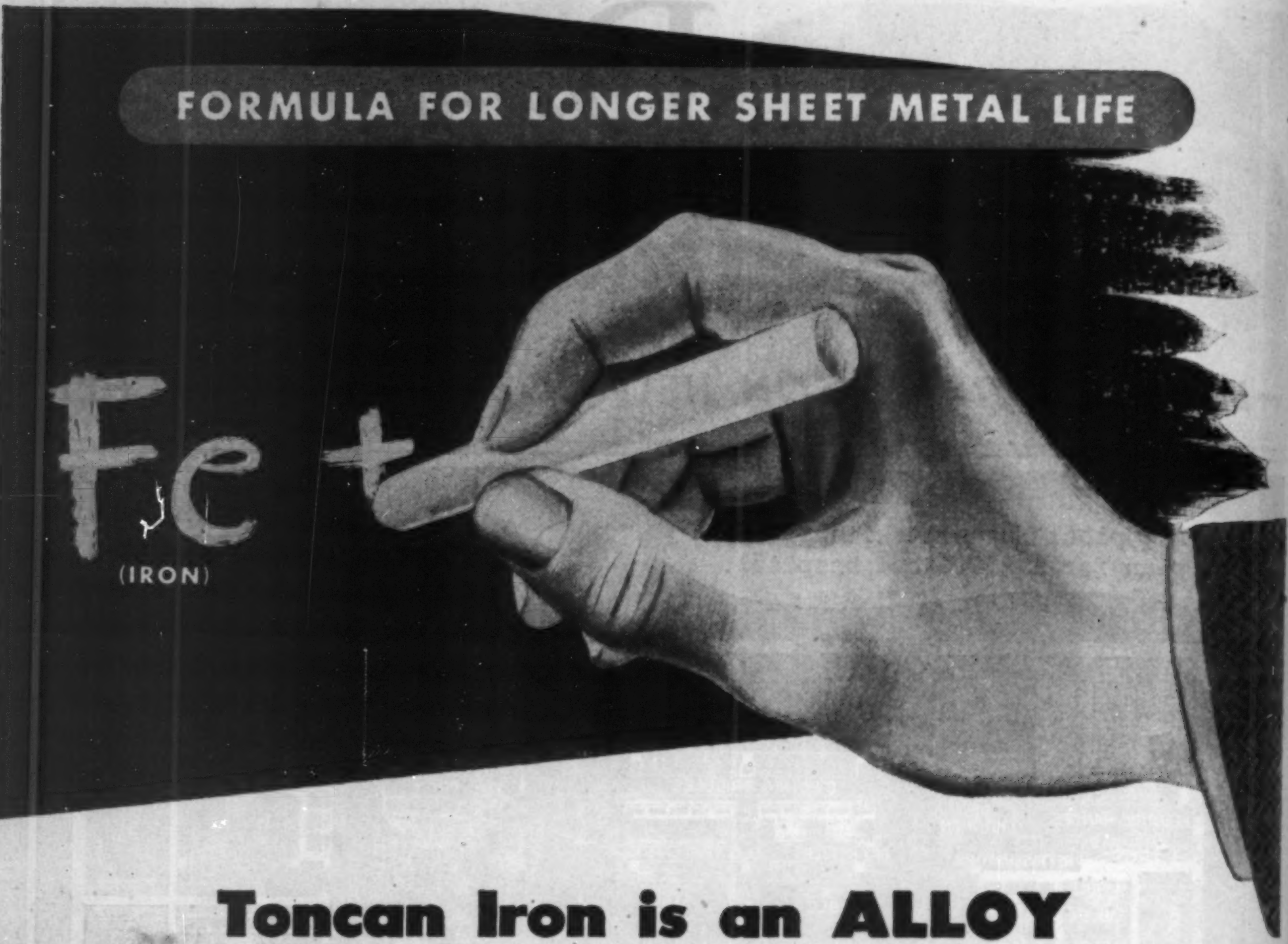
HOTPOINT REGIONAL SALES OFFICES

EASTERN: 570 Lexington Avenue, New York City 22, Plaza 3-9333
SOUTHERN: 304 Red Rock Building, Atlanta 3, Walnut 2959
CENTRAL: 1456 Merchandise Mart, Chicago 54, Superior 1174
WESTERN: Western Merchandise Mart, 1355 Market Street, San Francisco 3, Underhill 2727
CANADA: Canadian General Electric Co., Ltd., Toronto, Ontario
Selling through leading Kitchen Equipment Distributors

HOTPOINT EDISON

Oldest and Largest Manufacturers of
Commercial Electric Cooking Equipment

RANGES • BAKE OVENS • ROASTING OVENS • DEEP FAT FRY KETTLES • BROILERS • GRIDDLES


FORMULA FOR LONGER SHEET METAL LIFE
Fe +
(IRON)

Toncan Iron is an ALLOY

that has the Highest Rust-Resistance of all Ferrous Materials in its Price Class

The outstanding performance of mechanized implements of war has further demonstrated the greater advantages obtainable through the alloying of various metals. That's why Toncan Iron—known for its rust-resistance for some 35 years—should be more popular in the future than ever before.

Toncan Iron is an alloy—with the highest rust-resistance of any ferrous material in its price class. It is made from highly-refined open-hearth iron (Fe) with which copper and molybdenum have been alloyed in correct proportion. It has *twice as much rust-resisting copper* as found in copper-bearing steel—along with *molybdenum* to make the copper more effective.

Toncan Iron is one of the easiest materials to fabricate, too—because it is commercially-pure iron, processed for high ductility. And no matter how you work Toncan Iron, you can't weaken its rust-resistance—for it goes *all through the metal.*

When you are asked to specify a material to fight rust, you'll find the best answer in Booklet No. 406, "A Few Facts About Toncan Iron for Architects and Engineers."

REPUBLIC STEEL CORPORATION
GENERAL OFFICES • CLEVELAND 1, OHIO
Export Department: Chrysler Bldg., New York 17, N.Y.

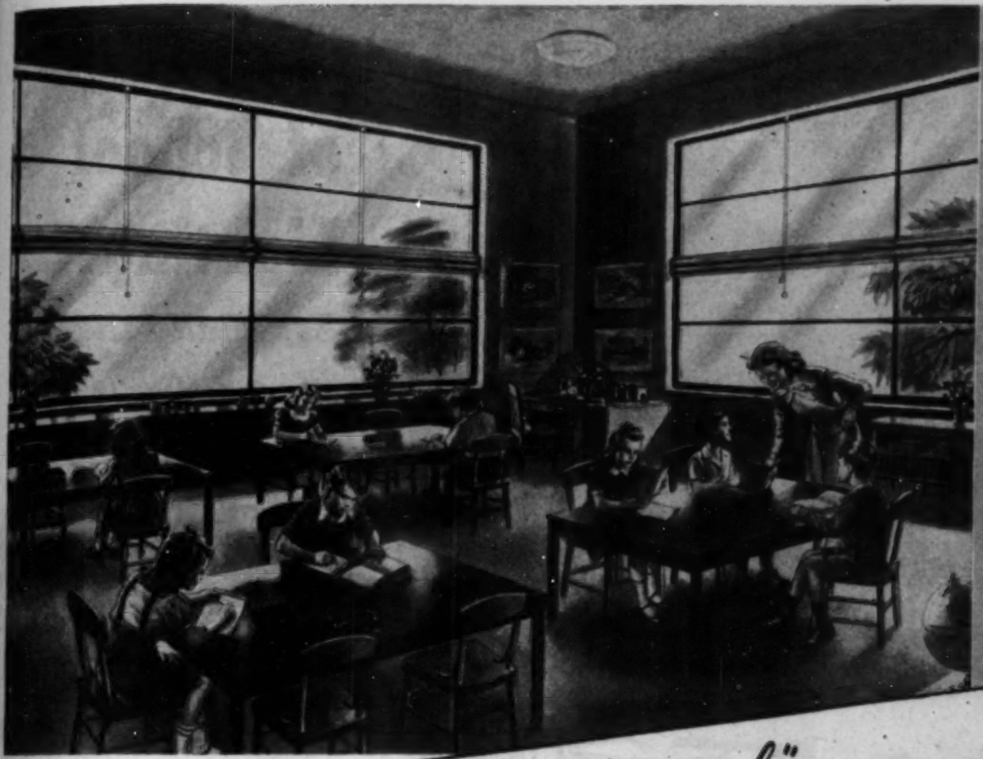
SEE SWEET'S FILE
or write us for detailed information on these Republic Building Products
Pipe—Sheets—Roofing
Enduro Stainless Steel
Toncan Enameling Iron
Electrunite E.M.T.
Fretz-Moon Rigid Steel Conduit
Taylor Roofing Ternes
Berger Lockers, Bins, Shelving, Kitchen Cabinets
Truscon Steel Windows, Doors, Joists
and other building products

Republic

REPUBLIC STEEL
PRODUCTION FOR VICTORY

TONCAN COPPER MOLYBDENUM **IRON**
Reg. U. S. Pat. Off

—for ducts, gutters, conductor pipes, roofing, siding, tanks, ventilators, skylights, hoods, and other sheet metal applications requiring rust-resistance.

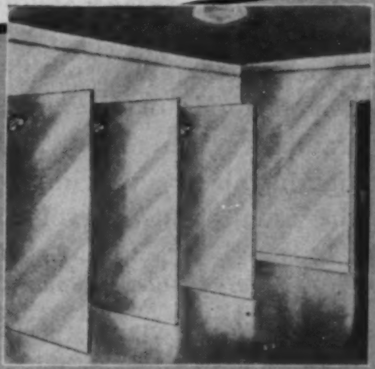


DAYLIGHT ENGINEERING is an important element in classroom design. Provide plenty of well-distributed natural daylight by specifying large windows and light-colored walls and ceilings. Prevent the "shut-in" feeling that leads to restlessness, by placing window sills low enough to permit a view of the outdoors.

THERMOPANE, the L·O·F windowpane that insulates, makes large windows thoroughly practical, whatever the climate. It does away with the need for putting up and taking down extra sash for insulation.

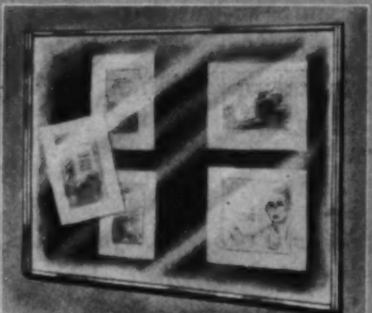
Why GLASS is a *"Natural"* for many uses in School Buildings

VITROLITE, colorful L·O·F structural glass, is an ideal wall surface for shower rooms. Water won't harm it, and it never needs refinishing. It keeps its lustrous, easy-to-clean surface.



More daylight . . . greater cleanliness . . . a surface that doesn't need refinishing in spite of frequent soiling and washing—these characteristics of glass are good reasons why it is being specified more and more for new schools and for wider use in modernization of existing structures.

The versatility of glass is a valuable aid to school architects. You can have glass that is transparent, translucent or opaque. Colorful or colorless. With a smooth finish, or in decorative patterns. Tempered, for resistance to impact and thermal shock. For the right glass for every use, see your L·O·F Distributor. Libbey·Owens·Ford Glass Company, 1665 Nicholas Building, Toledo 3, Ohio.



INSTRUCTIVE EXHIBITS along hallways increase students' interest and pride in their work. Provide display cabinets with glass doors for handiwork of art, mechanical drawing, manual training, home economics and other classes. Glass keeps exhibits clean, protects them from handling.

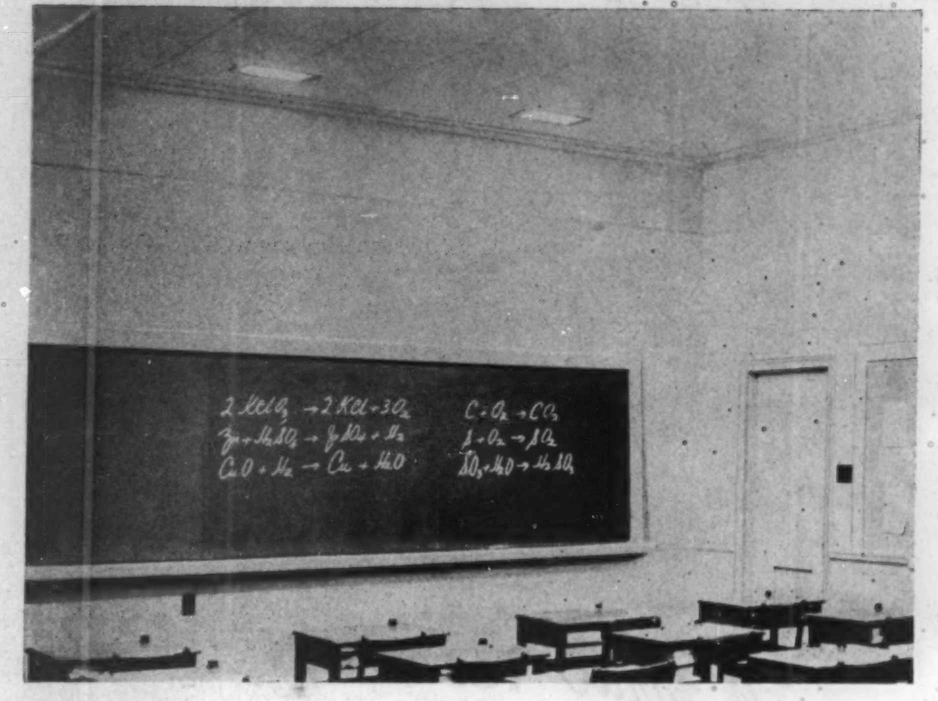
WHEREVER VISION IS IMPORTANT USE L·O·F *Polished Plate* GLASS

LIBBEY·OWENS·FORD
a Great Name in **GLASS**

Holophane Engineers Solve Every Problem of School Lighting...

Especially that most difficult of all areas . . .

BLACKBOARDS

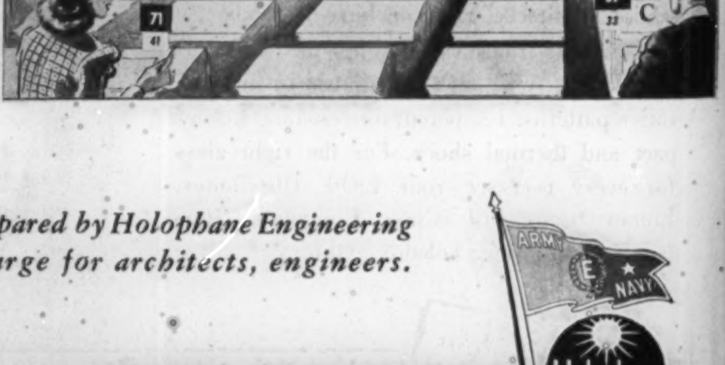

$2KClO_3 \rightarrow 2KCl + 3O_2$
$Zn + H_2SO_4 \rightarrow ZnSO_4 + H_2$
$CuO + H_2 \rightarrow Cu + H_2O$
$C + O_2 \rightarrow CO_2$
$S + O_2 \rightarrow SO_2$
$SO_3 + H_2O \rightarrow H_2SO_4$

"CHALK ON SLATE continues to be the standard method of most blackboard explanations. When the teacher's demonstration requires sharp concentration, a system of special blackboard lighting makes a vast improvement in the visual problem involved."

GEO. C. COUSINS,
The Hydro-Electric Power Commission,
Ontario, Canada

TESTS have been made on the value of blackboard lighting in Canada, over an extended period of time, with striking results. They are important to postwar school planning and operation.

(Below) Sketch showing relative ease of reading writing on the blackboard from different positions in the classroom. Italic figures show visibility with average room lights. White figures in black boxes show results when blackboard lights are turned on, position "A", with blackboard lights being rated 100.

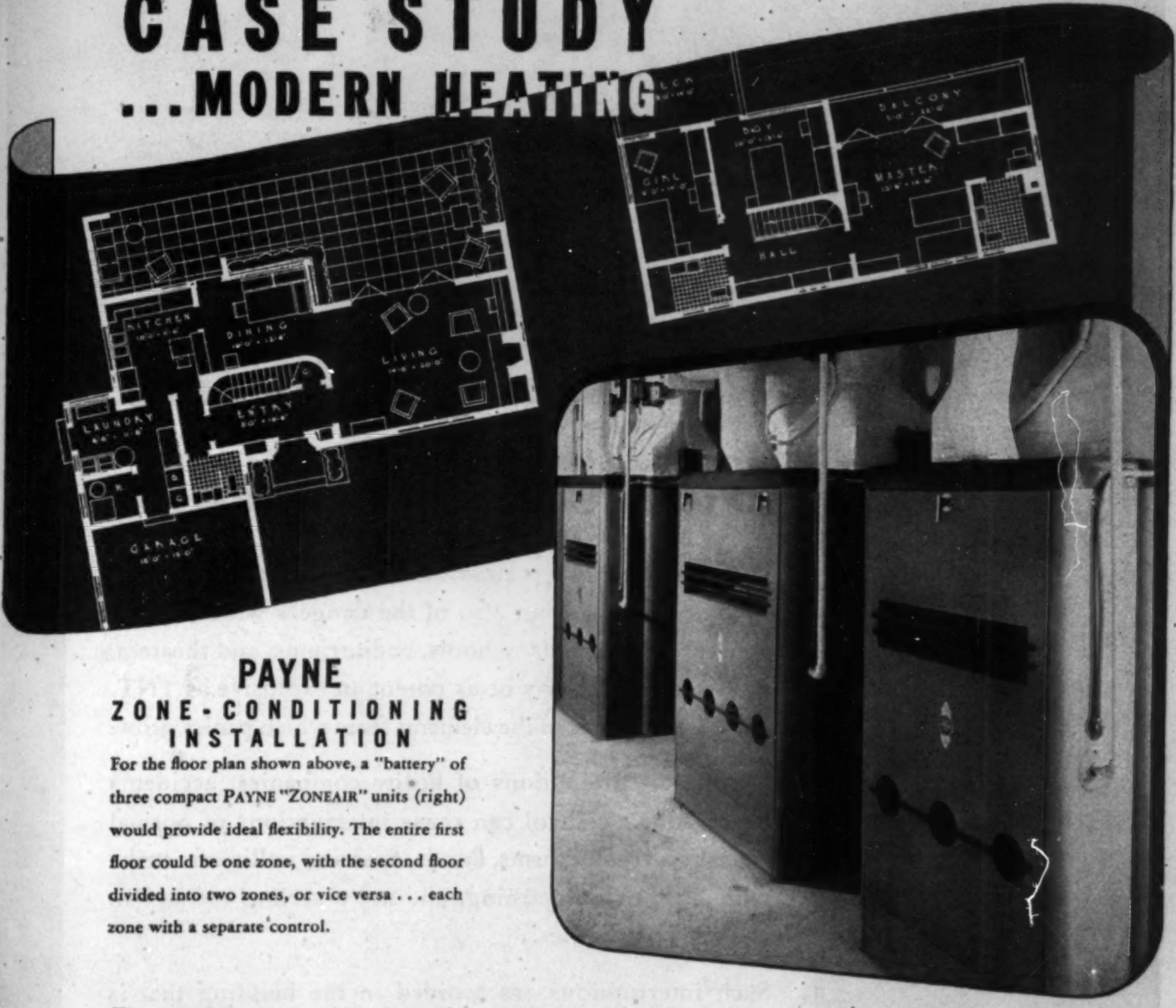

A
100
66
B
79
23
D
71
41
57
33
C

WRITE FOR YOUR COPY *of this and other data prepared by Holophane Engineering Department and available without charge for architects, engineers.*

HOLOPHANE COMPANY, INC. . . . *Lighting Authorities Since 1898*

342 MADISON AVENUE, NEW YORK 17 • Holophane Co., Ltd., 385 Yonge St., Toronto, Can.

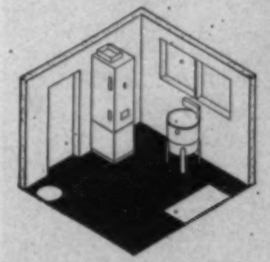
CASE STUDY
...MODERN HEATING



PAYNE
ZONE-CONDITIONING INSTALLATION

For the floor plan shown above, a "battery" of three compact PAYNE "ZONEAIR" units (right) would provide ideal flexibility. The entire first floor could be one zone, with the second floor divided into two zones, or vice versa . . . each zone with a separate control.

The problem—to provide winter air conditioning and cooling summer ventilation adapted to modern living. *The solution*—PAYNE ZONE-CONDITIONING, successor to old-fashioned central heating. ★ Any house, large or small, can be divided, according to natural grouping of rooms, into two, three, four or more zones; and any of the time-tried PAYNE models, when again available after victory, can be employed for ZONE-CONDITIONING. ★ Before planning any postwar building or remodeling, request new ZONE-CONDITIONING booklet. Write today.



FOR SMALLER HOMES

PAYNE "Sentry" forced air units may be installed on service porches or in other out-of-the-way corners. No basement required.

PAYNEHEAT
OVER 30 YEARS OF LEADERSHIP

GAS FUEL HAS EVERYTHING

PAYNE FURNACE COMPANY
(One of the Dresser Industries)
BEVERLY HILLS, CALIFORNIA

Dangers LURK IN DARKNESS

Darkness! Fear of it is almost instinctive. Not only a dread of darkness itself, but also of the dangers which it may conceal. In hospitals, schools, auditoriums, and theaters, sudden darkness may be as potent an explosive as TNT. For it is composed of the elements from which panics grow.

Despite all precautions of utility companies, accidents beyond their control can cause interruptions of normal electric current. Storms, floods, fires and collisions strike with little or no warning, and are a serious menace to electric power lines.

Such interruptions are avoided in the building that is equipped with an Exide Emergency Lighting Unit. It provides safe, sure, modern protection—operating instantly and automatically when needed. And it can be economically installed as an integral part of a building. For complete information, write or wire your nearest Exide Branch.

ARMY E NAVY

Exide
EMERGENCY
BATTERIES

THE ELECTRIC STORAGE BATTERY COMPANY
Philadelphia 32
Exide Batteries of Canada, Limited, Toronto

Simple Suggestions for More Attractive Wall Design Treatments with Douglas Fir Plywood

No. 3 of a Series

Many and varied are the wall design treatments possible with beautifully - grained Douglas fir plywood. Advertisements 1 and 2 of this series* detailed two methods of using panels placed horizontally. In the rendering below—that of a smart, modern, shop interior — vertical panel arrangement predominates. Standard 4 x 8 panels are used vertically with the wainscoating placed horizontally; the unusual design effect is achieved by vertical V-grooves, carried through from floor to ceiling.

In all cases, one basic rule applies: start at the openings with vertical joints and divide the plain wall spaces in an orderly pattern, as in detail A and C. Place vertical joints at each side of top and bottom of window and at top of door openings, as in detail A, C, E, and G. If the width of the door or window opening is over four feet, however, do not hesitate to place the panels horizontally as in detail E—for combinations of vertical and horizontal arrangements may be used in the same room with pleasing effect. Nine and ten foot lengths are available to assist in solving special problems.

The most satisfactory method of applying special patterns (or patterns made up of small panels) is to sheath with 5/16" or 3/8" Plyscord placed horizontally and apply the finish panels as desired.

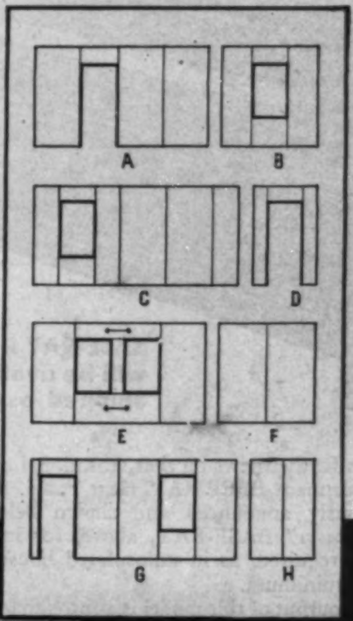
DOUGLAS FIR
PLYWOOD
LARGE, LIGHT, STRONG,
Real Wood
PANELS

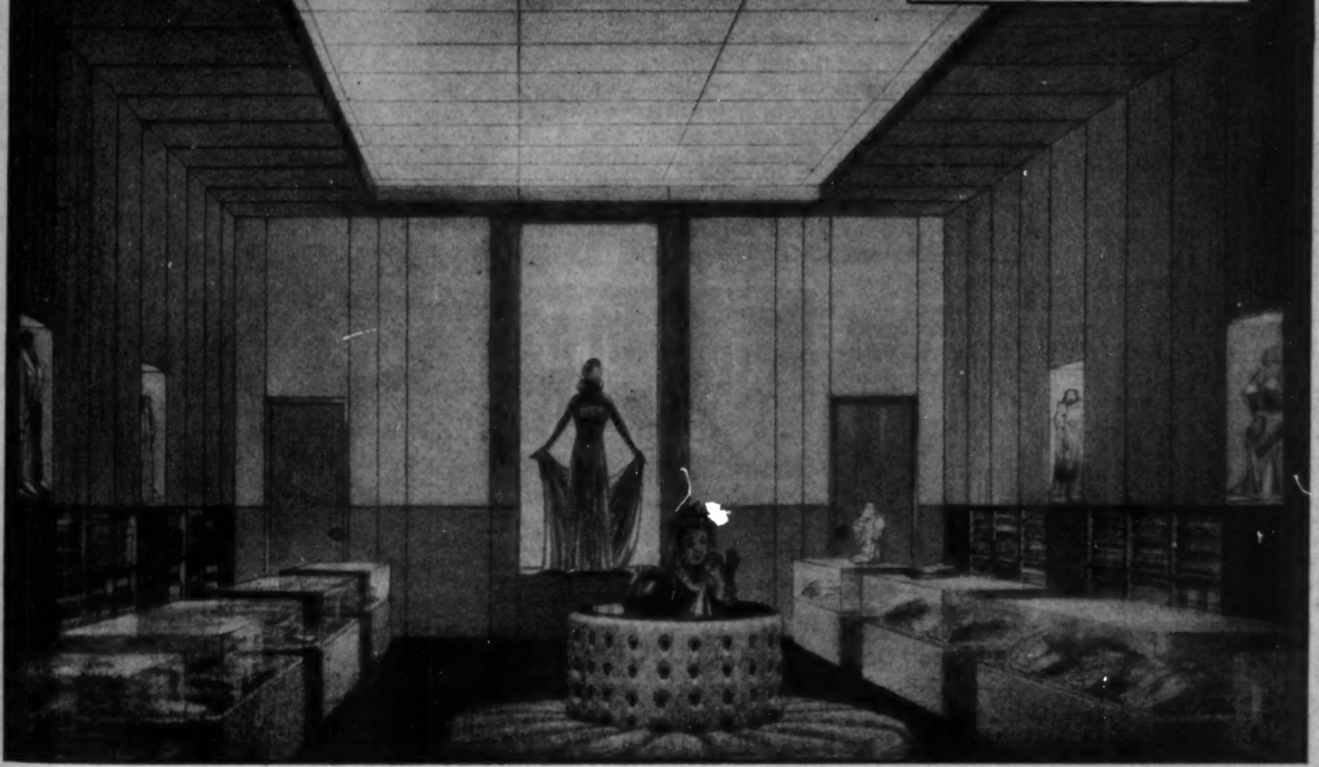
DOUGLAS FIR PLYWOOD ASSOCIATION
Tacoma 2, Washington

CAN PLYWOOD BE SPECIFIED NOW FOR POSTWAR USE?

The increased capacity of the industry will make MORE Douglas fir plywood available THAN EVER BEFORE, as soon as the needs of the armed services lessen or war restrictions are lifted. There will be no reconversion delays; the same types and grades of Douglas fir plywood that are now being made will flow immediately into peace-time building and construction.

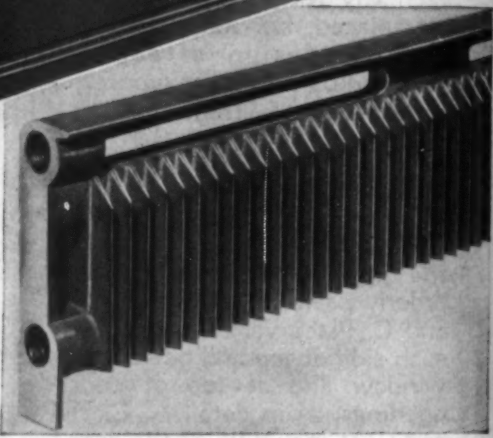
**Reprints available on request.*





And Now... The "HY-POWER" MODEL of the new BURNHAM BASE-RAY HEAT PANEL

BASE-RAY Heat Panels are cast iron and will be available in 12" and 24" panels. Shipped assembled to required length.



Above: Rear view of "Hy-Power" BASE-RAY showing placement of fins which step up heat output. Sections are 7" high and 2" deep.

Here's further news on that sensational development in RADIANT Heating, the Burnham BASE-RAY Heat Panel. Besides the *"Standard"* BASE-RAY previously announced and shown below, at right, Burnham offers the *"Hy-Power"* BASE-RAY, above, for installations where greater heat output is required, as in uninsulated houses or rooms where baseboard space is at a minimum.

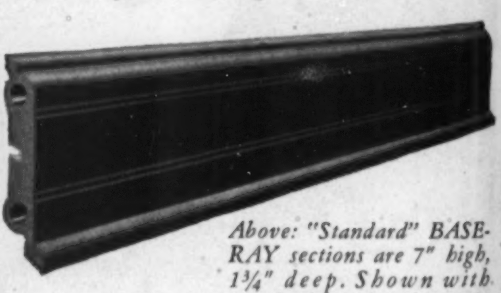
The output of this model is approximately 60% greater than the "Standard" BASE-RAY, yet it is the same height and only ¼" deeper. This greater efficiency is achieved by means of vertical fins on the back of the unit—with *air inlet* opening at the bottom and *air outlets* near the top.

Illustration above shows two 24" Hy-Power sections assembled—with top wood molding in place—to give you a clearer idea of how attractive these streamlined units appear when assembled along one end or side of a room.

Burnham BASE-RAY Heat Panels are installed where heat loss is greatest on the outside walls. They deliver radiant warmth at *ankle-height*—providing a "blanket of heat" which makes floors delightfully cozy and comfortable.

Tests show that this new and improved method of heating provides the most even floor-to-ceiling temperatures ever achieved. Even in sub-zero weather, the floor-to-ceiling differential is less than 3°.

Your customers are going to be asking you questions about NATIONALLY ADVERTISED Burnham BASE-RAY Heat Panels. Be prepared to answer their questions, *NOW*. This will mean many future orders for modernization work and new installations. Write us at once for further facts on BASE-RAY.



Above: "Standard" BASE-RAY sections are 7" high, 1¾" deep. Shown with standard wood moldings in place at top and bottom.

BURNHAM
BASE-RAY
HEAT PANEL

Right: Neat metal box, attached at ends of BASE-RAY assembly, effectively conceals all valve controls.

Burnham
RADIANT WARMTH
SINCE 1873

Burnham Boiler Corporation

IRVINGTON, N. Y., Dept. R65
Export Department 50 CHURCH ST., NEW YORK 7, N. Y.

INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS
I-B-R
MEMBER

Why FREIGHT ELEVATORS are important!

BEHIND this busy scene, freight elevators are constantly on the job . . . keeping supplies and even the trucks themselves moving on schedule . . . without bottlenecks . . . without confusion.

For intensive service, the elevators should be high speed, automatic in operation and provided with power operated doors. Such equipment will compensate for some of the time lost in loading and unloading operations.

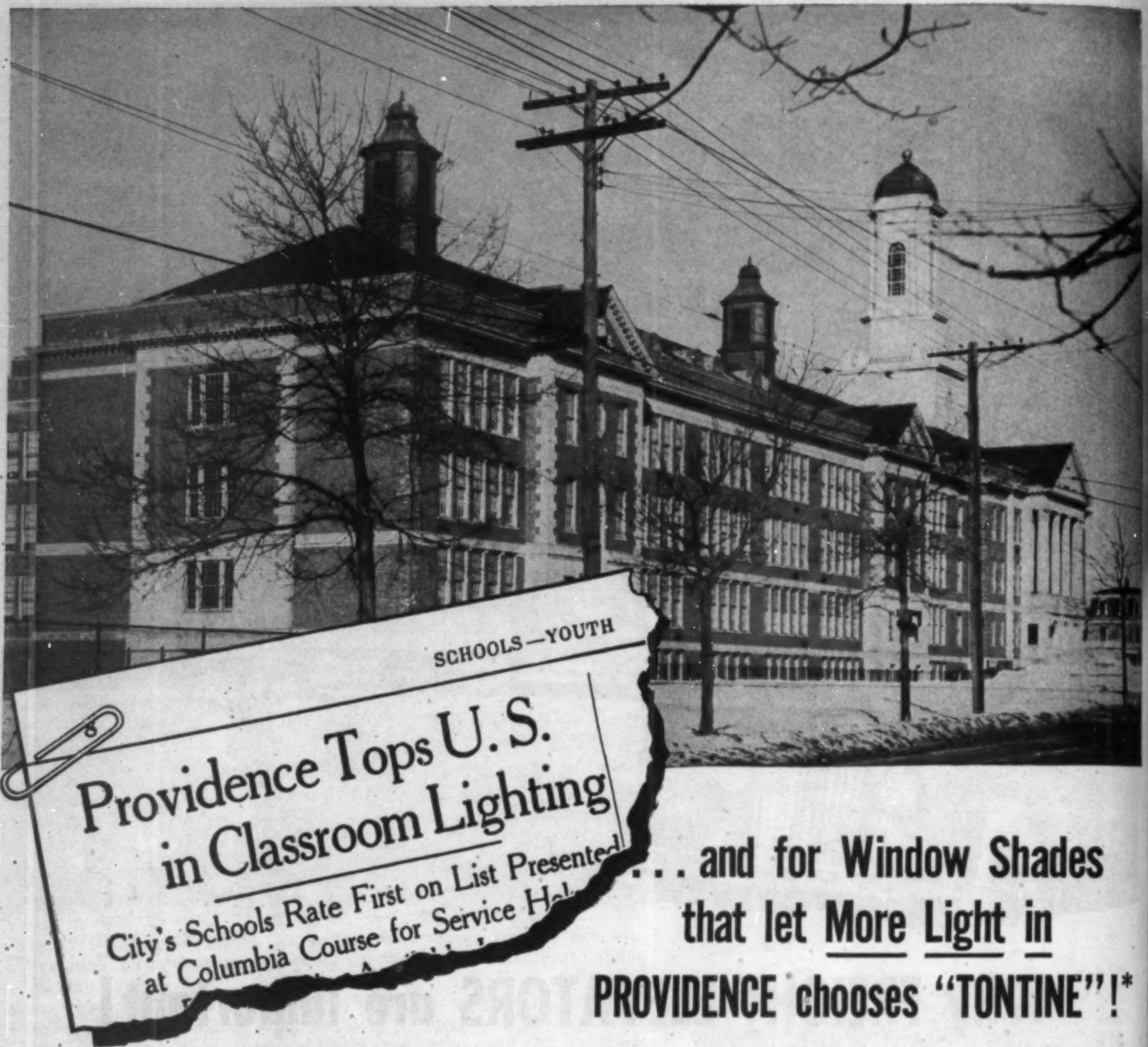
If conditions require, freight elevators can be dispatched to predetermined floors to suit any cycle of operation. Also, they do not necessarily require regular attendants.

Your nearest Otis representative is now available to assist you and your Architect in making preliminary elevator plans and studies. For the finest in vertical transportation tomorrow, call your Otis representative TODAY!

Otis

ELEVATOR COMPANY

OFFICES IN ALL PRINCIPAL CITIES



SCHOOLS—YOUTH

Providence Tops U.S. in Classroom Lighting

City's Schools Rate First on List Presente
at Columbia Course for Service H

. . . and for Window Shades that let More Light in PROVIDENCE chooses "TONTINE"!*

Last summer's school maintenance class at Columbia University voted Providence, R. I., schools one of the leading groups in the nation for good classroom lighting. One important reason for the better lighting in Providence schools is Du Pont "Tontine" Window Shade Cloth. Shades made of "Tontine" are translucent. They permit light to enter the room even when they're drawn, yet prevent glare from direct sunlight.

To give school and other interiors better light, specify window shades made with Du Pont "Tontine"! This material lasts longer—saves cost. It's pyroxylin-impregnated—washable with soap and water. And "Tontine" will save your clients many shade maintenance headaches! Authorized "Tontine" dealers can arrange an economical washing service. E. I. du Pont de Nemours & Co. (Inc.), "Tontine" Sales, Newburgh, New York.

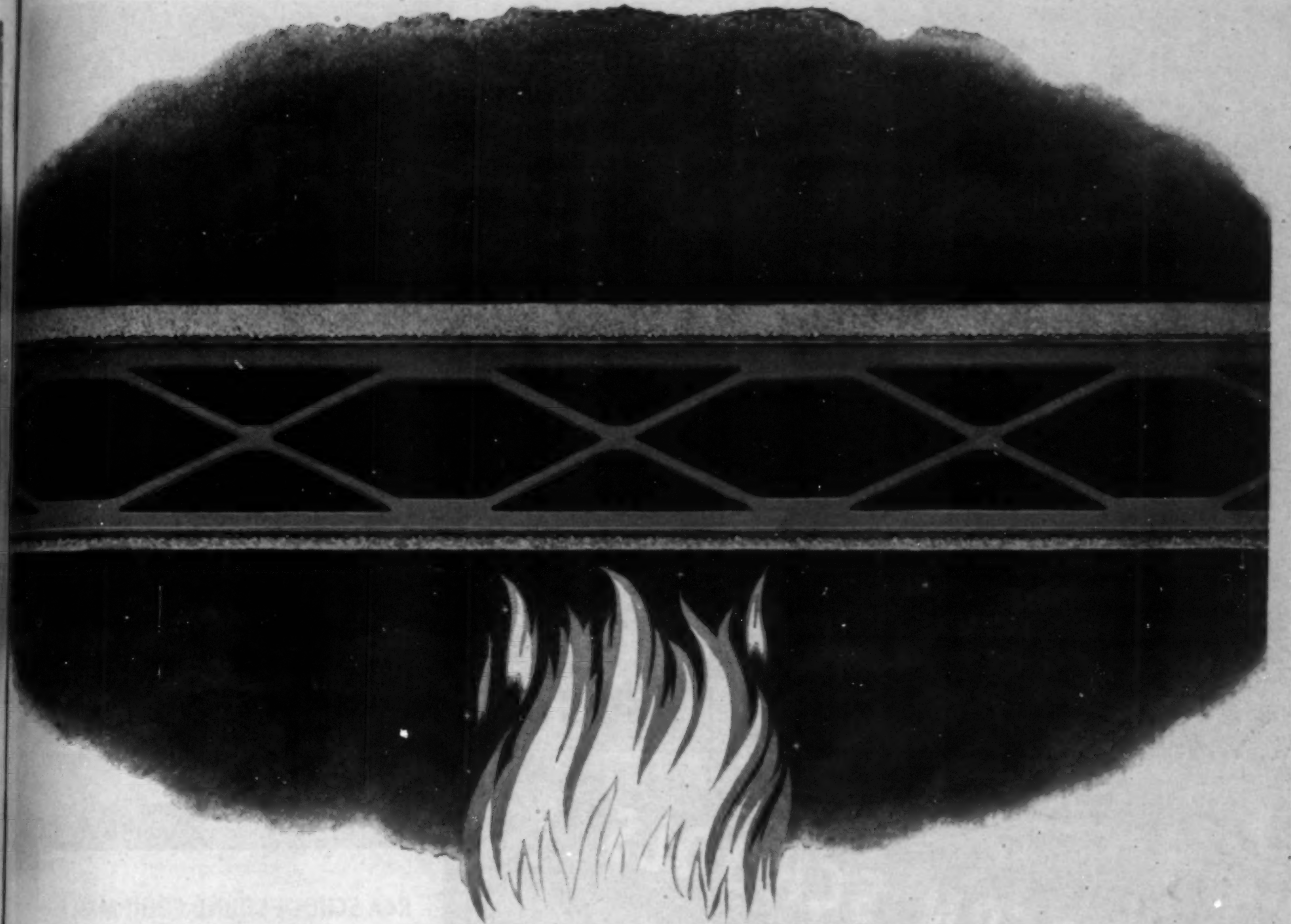
*"**TONTINE**" *is Du Pont's registered trademark for its pyroxylin-impregnated washable window shade cloth.*

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

INVEST IN WAR BONDS AND STAMPS!

DU PONT "TONTINE"
SHADE CLOTH



TWO-HOUR FIRE RESISTANCE

at low construction cost

Bethlehem Open-Web Joists—either standard or Longspan—with concrete floor slab and metal-lath and plaster ceiling, provide two-hour fire resistance, with attendant reduction in insurance rates.

This costs considerably less than regular fireproof construction—and comparatively little more than construction that is not fire-resisting.

When you're designing a store, a school, a home, an apartment—isn't this an important consideration for your client?

There are other advantages, too. Construction with Bethlehem Open-Web Joists means initial economies, for the joists are completely pre-fabricated, arrive at the job cut and marked for quick placing without falsework by two or more workmen. These joists never sag or shrink, and the open webs simplify installation of wiring, pipes and ductwork.

You can safely plan on using Bethlehem Open-Web Joists the moment that building is resumed. They'll be in good supply sooner than some other materials. If you haven't complete information on Bethlehem Open-Web Joists in your files, we'll be glad to supply it. Write to Bethlehem Steel Company, Bethlehem, Pa.

★ ★ ★ BETHLEHEM STEEL ★ ★ ★

Specify **BETHLEHEM OPEN-WEB JOISTS** for APARTMENT HOUSES . . . HOTELS . . . STORES
OFFICE BUILDINGS . . . DORMITORIES . . . HOSPITALS . . . SCHOOLS . . . HOMES

MODERN SCHOOLS

USE RCA SOUND SYSTEMS
FOR ESSENTIAL TEACHING AID

RCA Sound Systems provide simple and efficient means for instant distribution of radio programs, recordings and lectures to any or all rooms in the school...*Sound Amplification* in auditorium, lunchroom, assembly hall, gym or playground brings entertainment or instruction to a larger audience...*Intercommunication Facilities* place the school administrator, staff and faculty members in instant touch with each other...*Emergency Instructions*, issued in case of fire or accident, may prevent injury or loss of life...*Paging and Special Announcements* over an RCA Sound System save time and effort.

RCA Sound Systems, Centralized Radio and Intercommunication Facilities—for every school need. Design sound into your plans for new or remodeled structures. If you need assistance with your project, write Department 70-138AR, Sound Equipment Section, Radio Corporation of America, Camden, New Jersey. An RCA Sound Specialist is at your disposal.

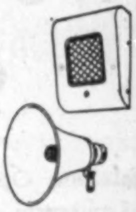
RCA SOUND SYSTEMS

RADIO CORPORATION OF AMERICA
RCA VICTOR DIVISION • CAMDEN, N. J.
LEADS THE WAY...In Radio...Television...Tubes...Phonographs...Records...Electronics

70-6336-138

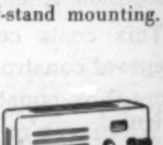
RCA SCHOOL SOUND EQUIPMENT

Control console—contains radio, phonograph and microphone, control and selector switches.

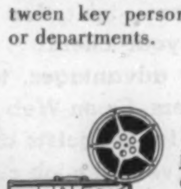


Speakers—wall-cabinet and flush-mounted type for inside use; horn-baffle type for outdoor use.

Microphones—dynamic and velocity types in either table or floor-stand mounting.



Intercom units—for communication between key persons or departments.



16MM Sound Projector for showing educational and entertainment films in classroom or auditorium.

Refreshing Cleanliness

WITH

ARCHITECTURAL CONCRETE

COCA-COLA BOTTLING CO

For buildings open to public inspection—which must look invitingly clean inside and out and be easily kept as clean as they look—architectural concrete is the ideal material.

Many bottling and food companies utilize the spic and span appearance of their concrete buildings as an advertising asset.

But beyond attractive appearance, concrete provides these intrinsic structural advantages:

A high degree of fire resistance.

Long life with low maintenance cost because concrete has the strength and durability to resist hard usage and severe weather exposure.

Economical first cost because architectural concrete combines both architectural and structural functions in one material.

Concrete construction gives owners all these essential advantages at *low annual cost*—the true measure of economy in buildings.

Write for technical literature on current design and construction practice with architectural concrete. Free in United States and Canada. See Sweet's Catalog 4F/3.

★ ★ ★

● Visitors may see bottling process through large window at left of entrance in this architectural concrete building of Coca-Cola Bottling Co., Covington, Tenn. Both plane and curved wall surfaces were formed against plywood. Structure designed by Everett D. Woods, Memphis architect and Robert Brown, associate. Harry Hunter, engineer and B. E. Buffaloe, contractor, both of Memphis.

PORTLAND CEMENT ASSOCIATION Dept. A6-8, 33 W. Grand Ave., Chicago 10, Ill.

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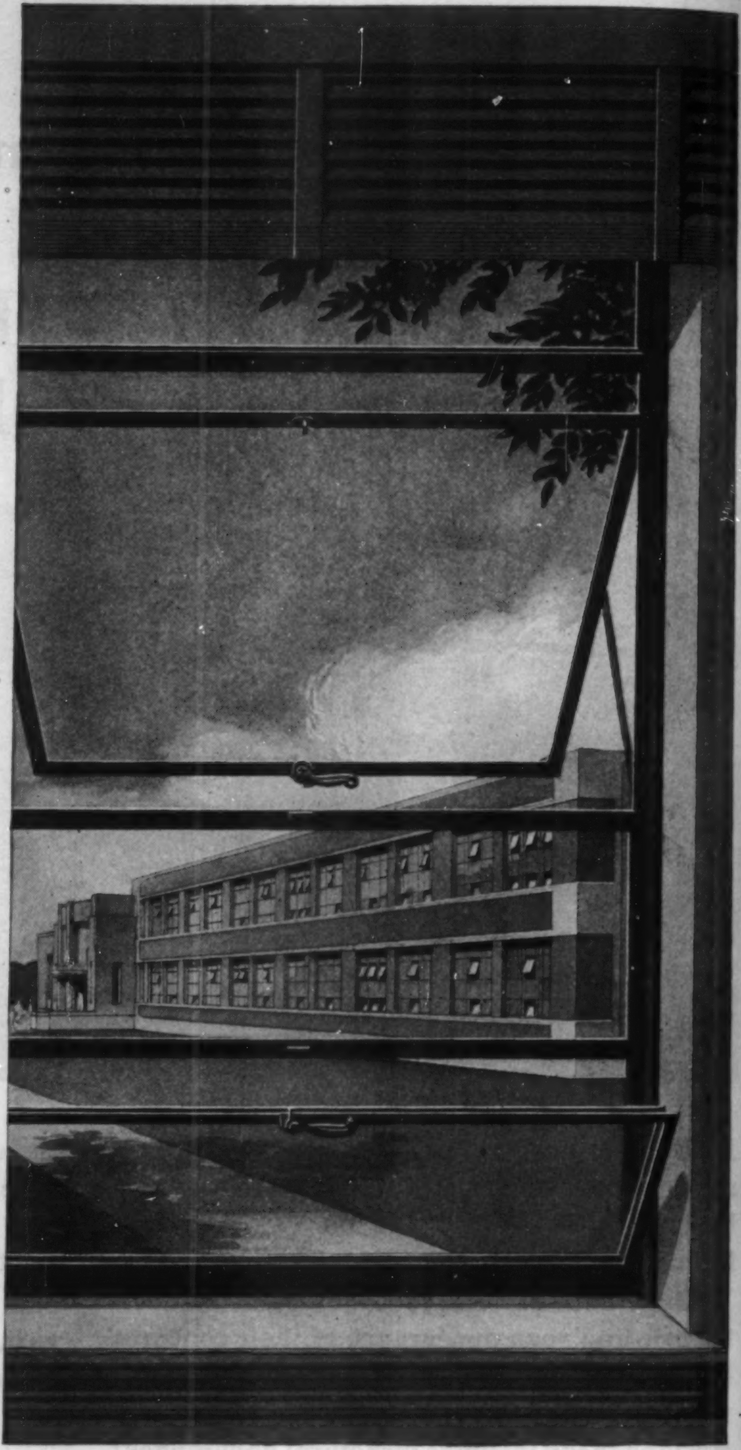
Dolly Madison Junior High School, Arlington County, Va. Division of School Buildings, State Dept. of Education, Architect. T. Calvin Owens, General Contractor, Washington, D. C.



Schools equipped with Lupton Metal Windows have ample natural ventilation, easily controlled to eliminate drafts. Lupton Metal Windows assure abundant day-lighting . . . combine weathertightness with easy operation and simplicity of design. For over 40 years the name *Lupton* has been the distinguishing mark for the highest grade construction in Metal Windows.

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SYLVANIA NEWS
ARCHITECTURAL EDITION

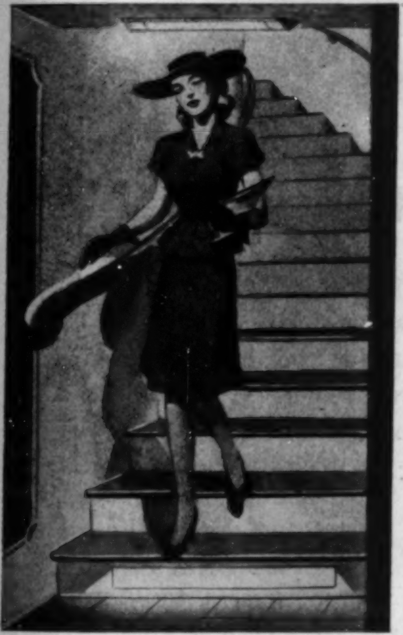
JUNE *Published by* SYLVANIA ELECTRIC PRODUCTS INC., Salem, Mass. 1945

21-INCH FLUORESCENT LAMP HAS MANY USES

New-Size Light Fits Into Small Spaces

The architect will be interested in the applications possible with Sylvania Electric's new 21-inch slim fluorescent lamp.

Particularly for those formerly hard-to-light spots – steps leading into the home, the doorway itself, stair landings,



Entrance illumination and built-in step lighting made easy with 21-inch Sylvania Lamp.

bathroom medicine chest mirrors, basement playroom sections, and many more well known to architects—this convenient length lamp is designed to fill the bill.

Not only is this latest addition to Sylvania's miniature fluorescent line adaptable because of length but also because it measures only five-eighths of an inch in diameter. And yet it uses a *standard* miniature bi-pin base and an FS-4 starter.

PUBLIC MOST RECEPTIVE TO FLUORESCENT LIGHTING

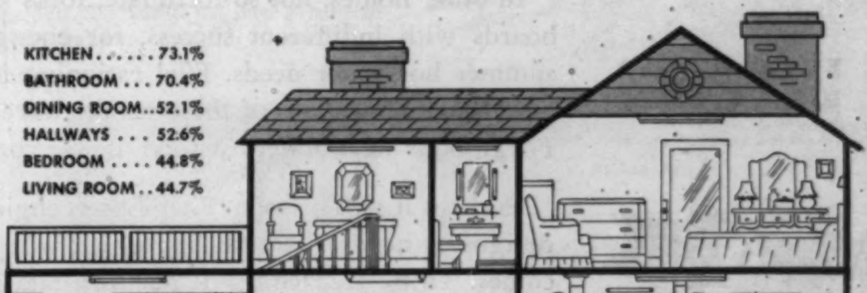
Survey Shows Postwar Trend To "Fluorescents-For-Every-Room"

When homes are again being built, fluorescent lamps will take a great part in lighting them up.

This statement is backed by the replies to one of the many questions asked the public through a nationwide, impartial survey conducted—at the request of Sylvania's Sales Research Department—by one of America's leading market research organizations:

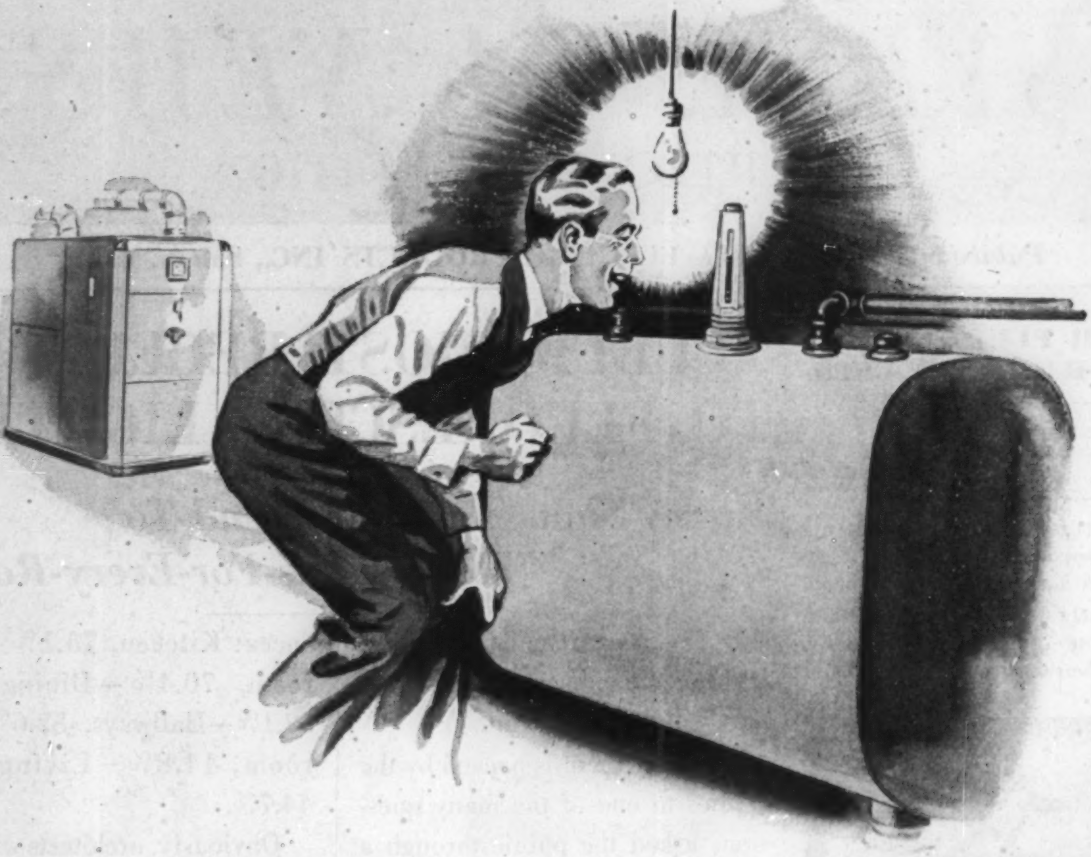
"In what rooms do you think fluorescent lighting is suitable?" The answer is, in effect, "Every room"—with the following preferences: Kitchen, 73.1% – Bathroom, 70.4% – Dining room, 52.1%—Hallways, 52.6%—Bedroom, 44.8% – Living room, 44.7%.

Obviously, architects will be interested in noting this public receptiveness to fluorescent lighting —as a help in keeping one step ahead when it comes to postwar home planning. The prevailing feeling is that fluorescent lighting is desirable and may be used effectively in almost any room of the house.



SYLVANIA ELECTRIC

MAKERS OF FLUORESCENT LAMPS, FIXTURES, ACCESSORIES; INCANDESCENT LAMPS; RADIO TUBES; CATHODE RAY TUBES; ELECTRONIC DEVICES



Picture of a man congratulating himself

He's thanking fortune—or some capable architect—that he has a Fitzgibbons steel boiler whose fuel-economizing qualities have saved oil from his winter's rationing to give him hot water through the summer. To him it's been just another winter of being thrifty with fuel, careful with the thermostat, shutting off heat from unused rooms. And he's had comfort in spite of a tough winter.

In other homes, not so fortunate, folks are petitioning their rationing boards with indifferent success, for enough fuel to see them through summer hot water needs. Fuel rationing has taught them a lesson, the hard way. Thousands of these people have told us lately that they want Fitzgibbons steel boilers as soon as war conditions will permit.

Perhaps it will be soon. Fitzgibbons engineers are testing out improved designs in heating equipment, which will be announced when the time comes. To be sure you will get this data without delay, write us now.

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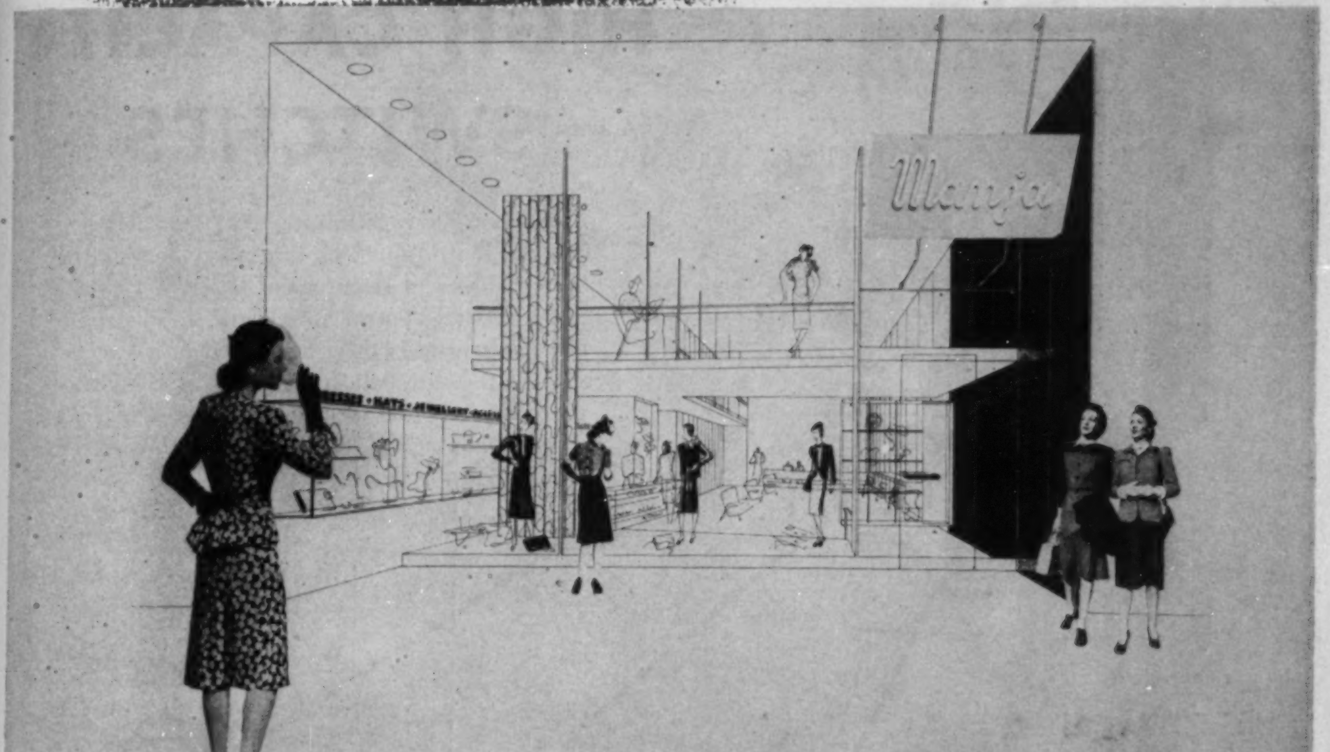
THERE IS A NEW TREND IN STORE DESIGN



GLASER and RADO'S conception of a women's apparel shop

"A glass area over the entire front opening," say Glaser & Rado, leading architects, "with a minimum of exposed frames gives a feeling of continuity between street and interior. This continuity is accentuated by the wine Carrara wall at the right, penetrating from the exterior into the interior. Also, the ceiling and the left side are continuous. On the left, the showcase for smaller display and the lettering continue beyond the separating glass front. One side of the shop is mirrored from floor to ceiling which optically doubles the space."

Samuel Glaser
Ladislav L. Rado

Leading architects have found the versatility of Pittsburgh Glass and Pittco Store Front Metal especially helpful in the creation of strikingly attractive store designs. And long experience justifies absolute confidence in the uniformly high quality of these products. You are assured of readily available "Pittsburgh" service through a nationwide system of branches and dealers.

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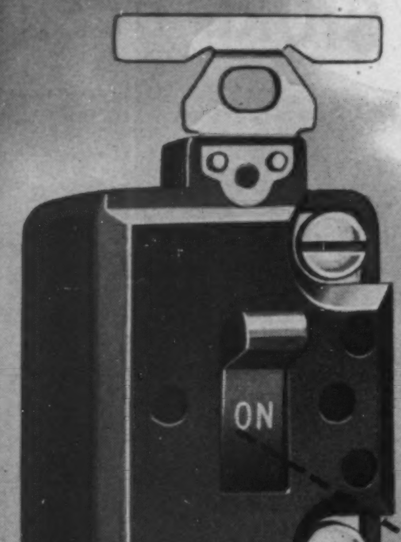
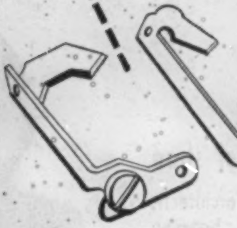
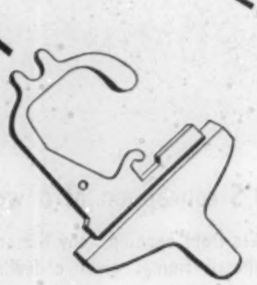


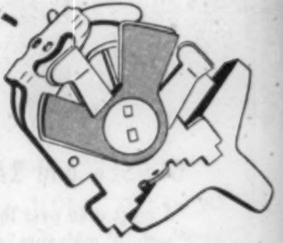
For high capacity 30 ampere, 125 and 250 volt circuits, the Bryant long life, heavy duty 5431 switch fills every requirement. It is "T" rated and meets all Federal Specifications. The rugged mechanism is totally enclosed in a strong molded Bakelite housing which fully insulates the yoke from the mechanism. This switch is supplied in single-pole, double-pole, three-way and four-way types.



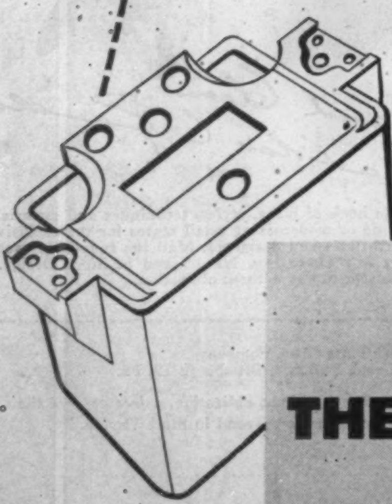
Heavy gauge contacts are in keeping with high capacity requirements.



Molded-on handle is practically indestructible. Top wiring with large recessed terminal screws.



Positive acting mechanism is anchored securely to switch base and Micarta baffles quench destructive arcs . . . thus insuring long-life, heavy duty service.



The molded Bakelite housing provides a strong frame for the mechanism and keeps out dust and dirt.

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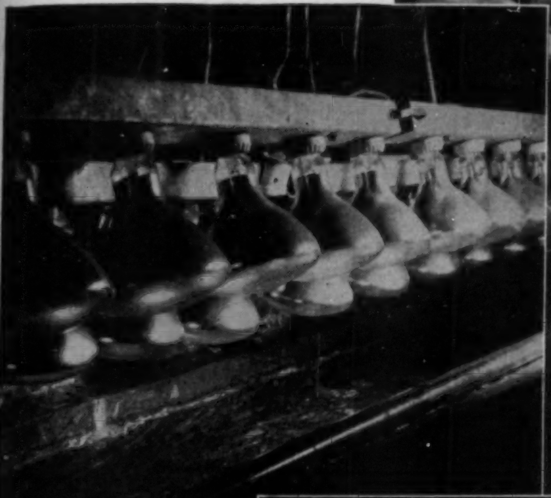
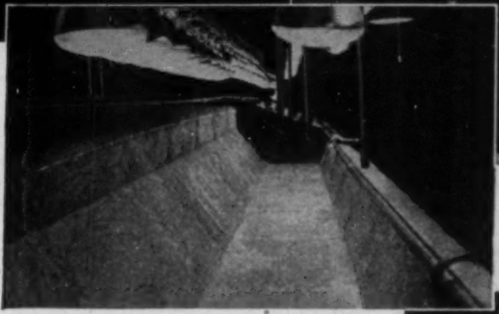
Better sheet copper construction

. . . thanks to REVERE research

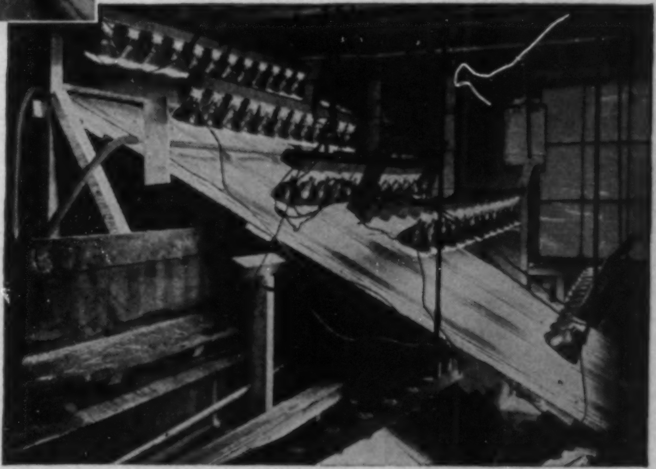


Here cold water can be seen pouring into a heated copper gutter undergoing test. The behavior of the gutter during expansion and contraction was recorded by motion picture photographs.

Installation of test gutter in Revere laboratory, duplicating a gutter which has given 70 years of perfect service on a public building.



Completed test gutter. By means of electric heating lamps and torrents of cold water, it was possible to create a temperature range of 160° F.



Exhaustive tests were also conducted on experimental copper roof panels and other installations in order to cover every phase of sheet copper construction.

Several years ago, Revere set out to discover why many old-time sheet copper installations have stood up better than some of the modern ones—despite refinements in copper as well as in the technique of installation.

The reason, discovered and confirmed by painstaking work in the Revere laboratory, is simply this—any sheet copper installation must have enough columnar strength to expand, when heated, without buckling. Alternate buckling and straightening, with expansion and contraction due to outdoor temperature extremes, is the real cause of failure.

From these findings, Revere has been able to reduce the principles of sheet copper construction to a matter of engineering design, with the assurance of satisfactory performance.

Details will be described and illustrated in a new booklet now being prepared. Upon request, we will place your name on our list to receive a complimentary copy when issued. Write the Revere Executive Offices. Revere materials are handled by Revere Distributors in all parts of the country. For help with difficult problems, call on the Revere Technical Advisory Service, Architectural.

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This diffusing "Waffle" panel, available in 24″ x 48″ size, will accommodate up to four 40 watt or eight 20 watt fluorescent lamps. Multiple rows of incandescent lamps may also be mounted behind this panel to provide an exceptionally attractive appearance.

Pleasing and unusual effects can easily be obtained by varying the position of the lamps in relation to the panel. Harsh light is transformed into comfortable, glareless illumination and the desired balance in brightness contrasts is readily obtained.

Grooved construction permits the panel to be cut into sections in multiples of six inches, thus providing maximum flexibility in fixture and installation design.

A copy of "Corning Lighting Data" will gladly be sent on request. It contains complete details on Corning's line of Flur-O-Guide lenses and diffusing panels. Write for your copy today. Lighting Sales Dept. AR6, Corning Glass Works, Corning, N. Y.

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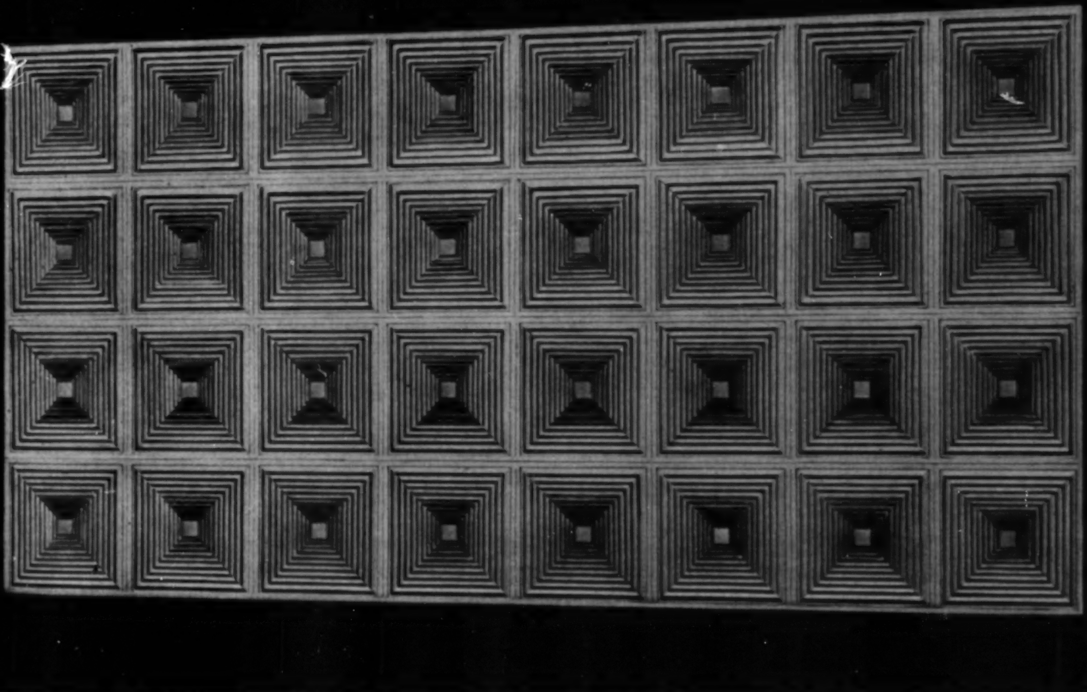

Note the grooved construction of the waffles which allows the panel to be cut in multiples of 6 inches.

"CORNING" is a registered trade-mark and indicates manufacture by Corning Glass Works, Corning, N. Y.

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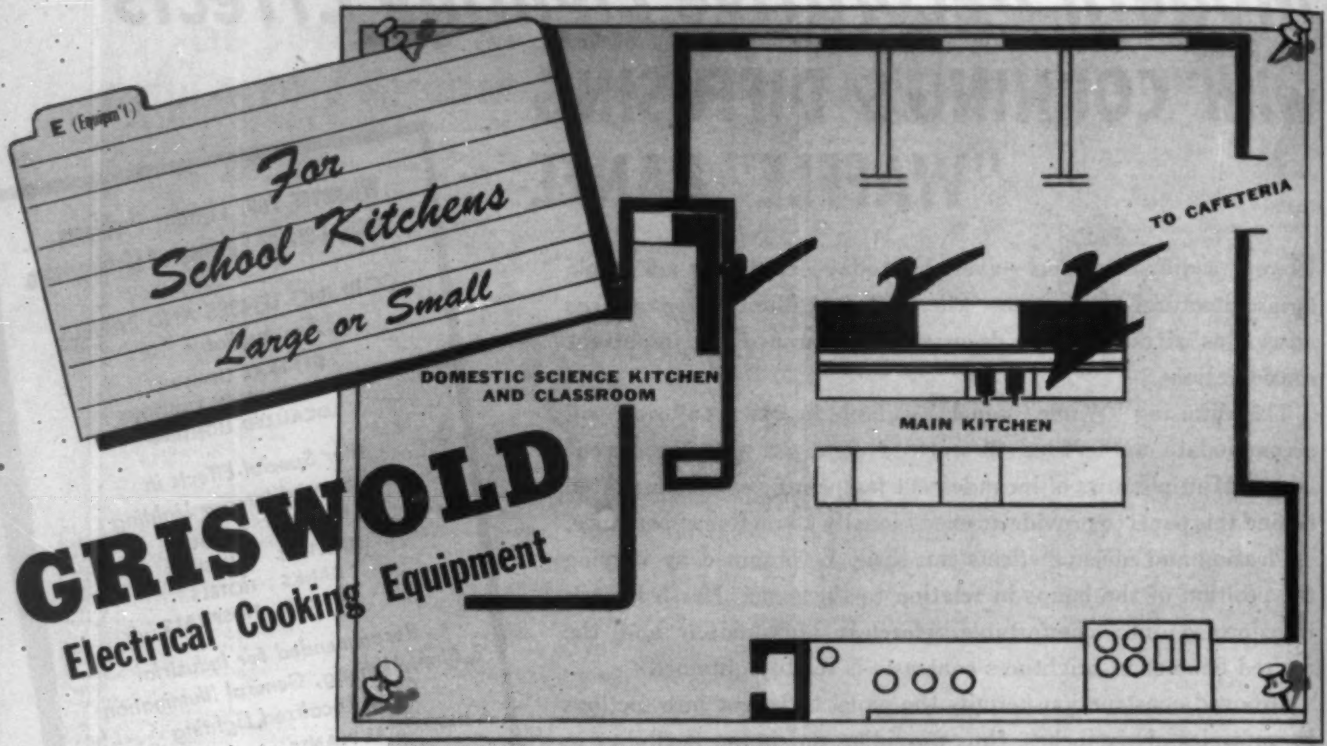
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Heavy Duty Range with top arrangement to suit your needs.

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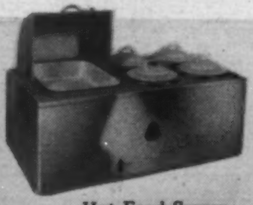
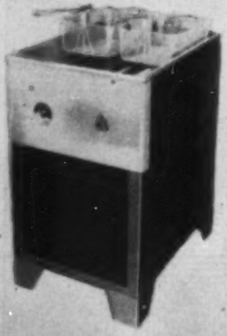


Hot Food Server.

White enamel two place hot plate.



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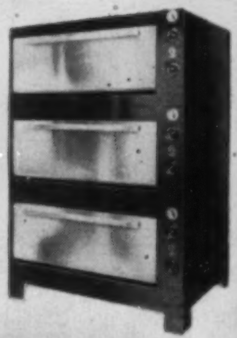

Baking and Roasting Oven.

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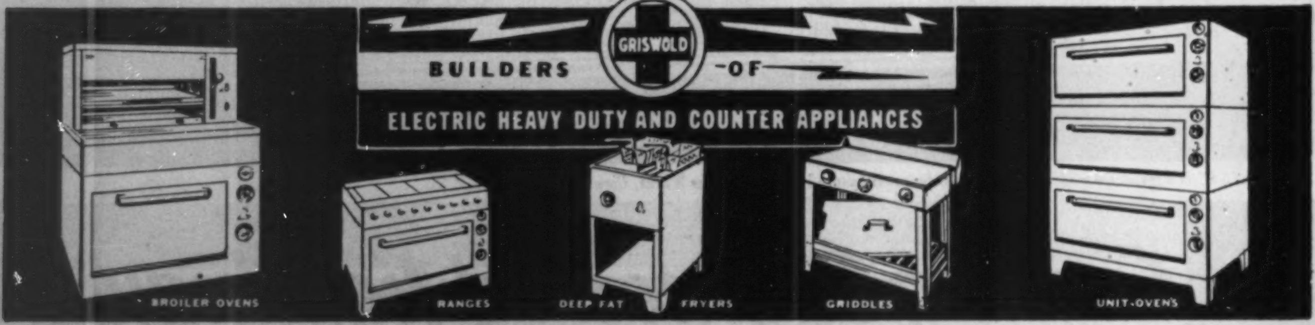
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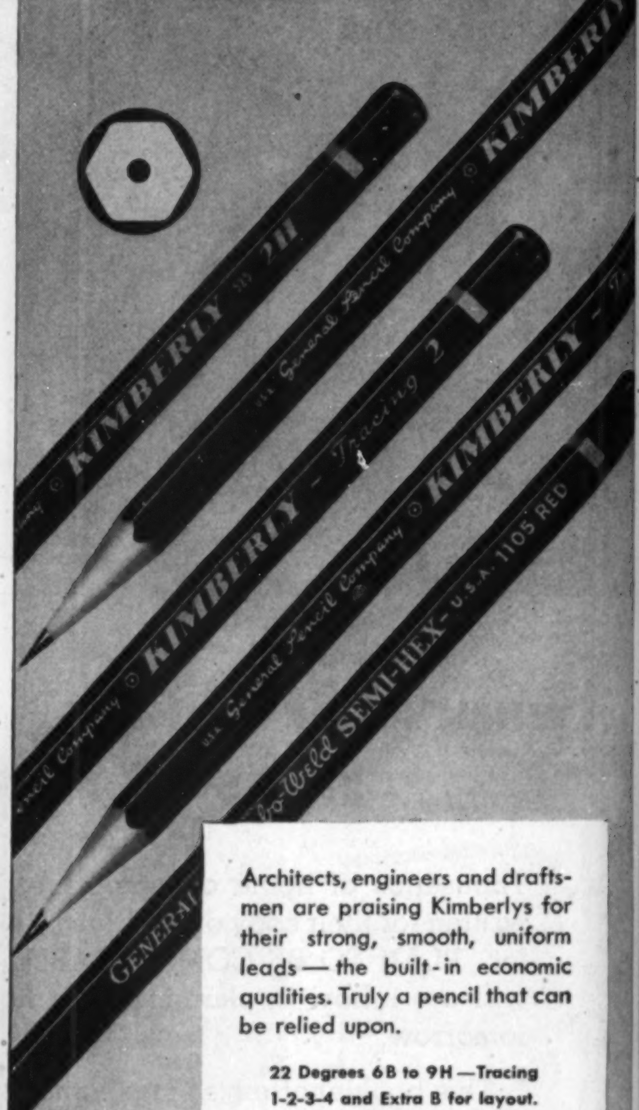
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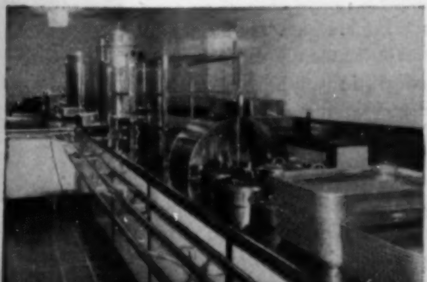

Close-up view of a typical Monel-equipped high school cafeteria counter. Trays, rails, trim and counter top are Monel.

One section of the kitchen at Brooklyn College, showing Monel vegetable and pot sinks. The machine in the center is a Monel vegetable peeler.

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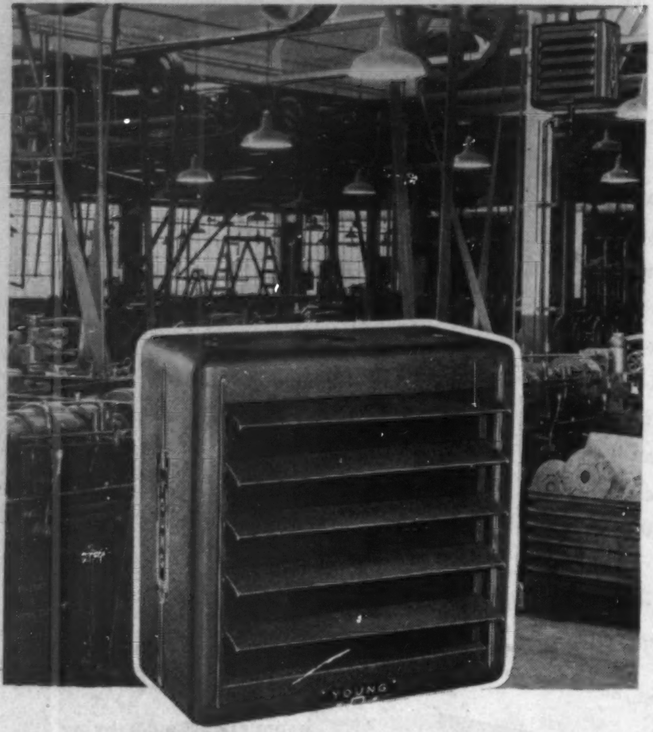

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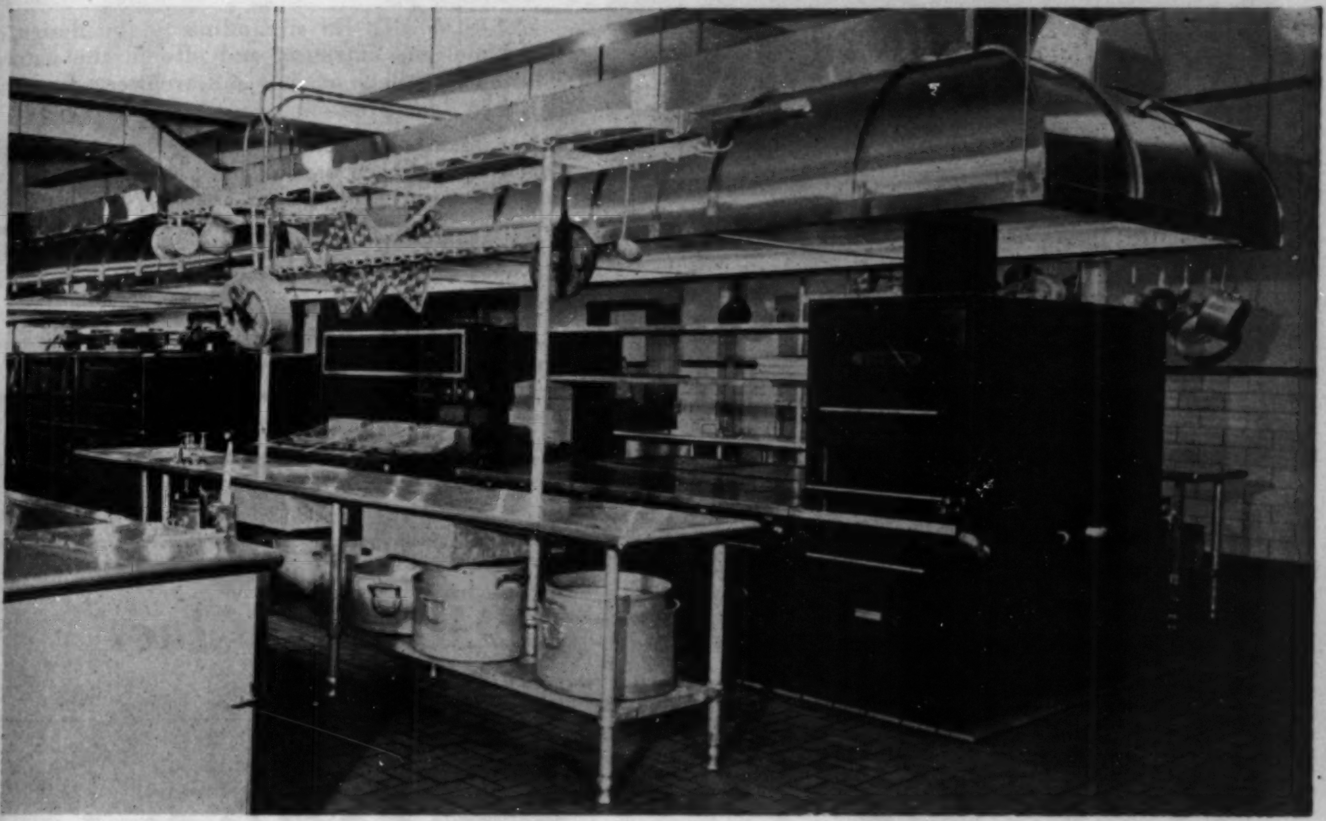

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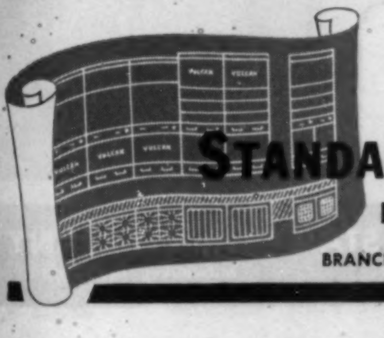

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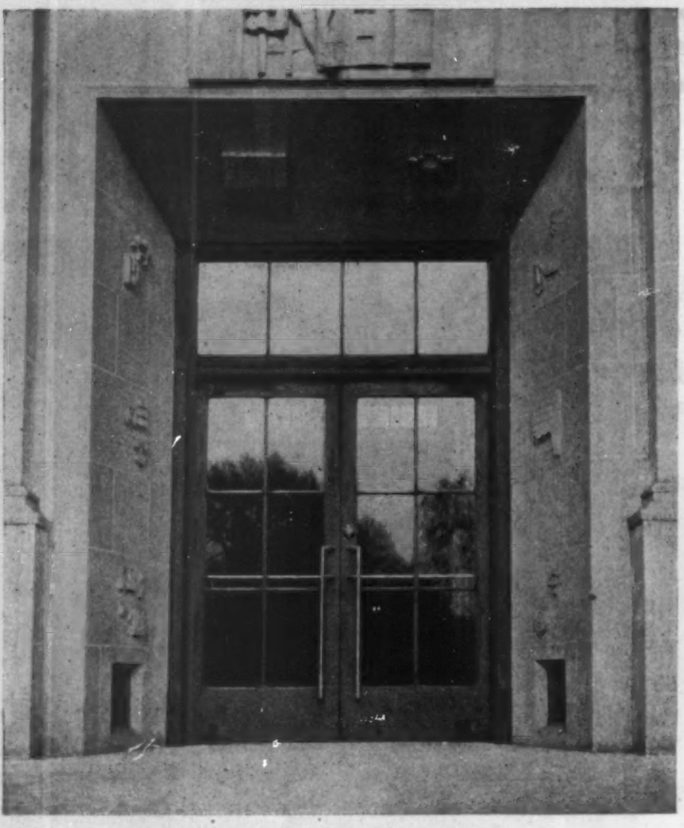

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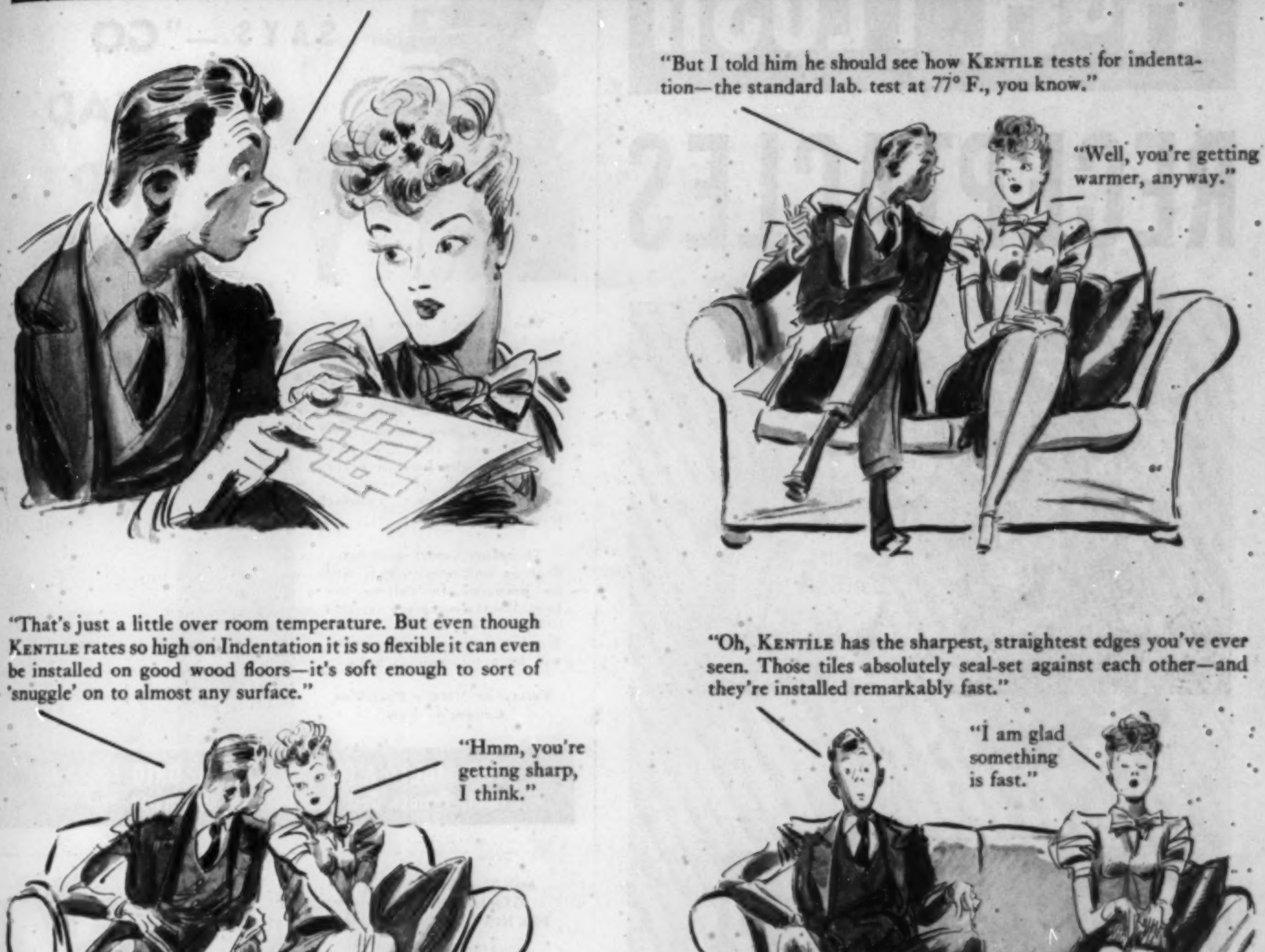
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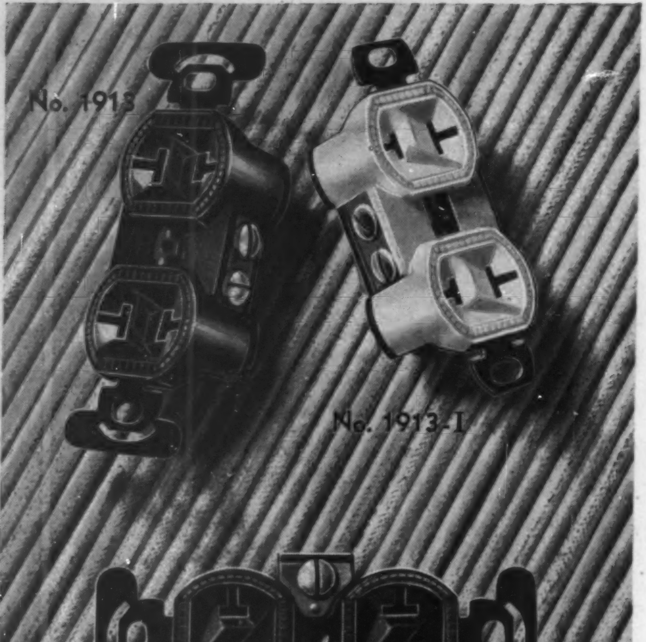

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Seating Capacity 2940

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The gymnasium is divided by an electrically operated folding partition which can be ope... or closed in approximately ... utes. The entire ope... trolled from a ke... is removable ... authorized ... provide... whe...

The ... each side ... total seating ... on th... per p... ways p... seat inst...

The a... this ... gy... gym... gym fo...

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A c... show... very much ... fashioned gym... large built in s...

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The multi-purpose ... shown provide a real source of income and will adequately finance even the most pretentious athletic activities. Be sure to provide sufficient seating to make this income possible.

Horn

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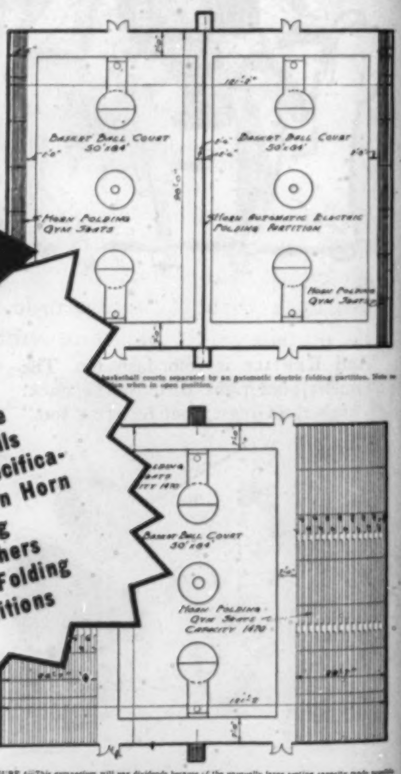
BASKET BALL COURT 50'x84'
BASKET BALL COURT 50'x84'
HORN FOLDING GYM SEATS
HORN AUTOMATIC ELECTRIC FOLDING PARTITION
HORN FOLDING GYM SEATS
BASKET BALL COURT 50'x84'
HORN FOLDING GYM SEATS — CAPACITY 1470

...basketball courts separated by an automatic electric folding partition. Note ... when in open position.

FIGURE 4—This gymnasium will pay dividends because of the unusually large seating capacity made possible by the 16-row folding gym seats. There are 2940 good seats available. Large gym seat installations such as this are invariably supplied with aisle ways.

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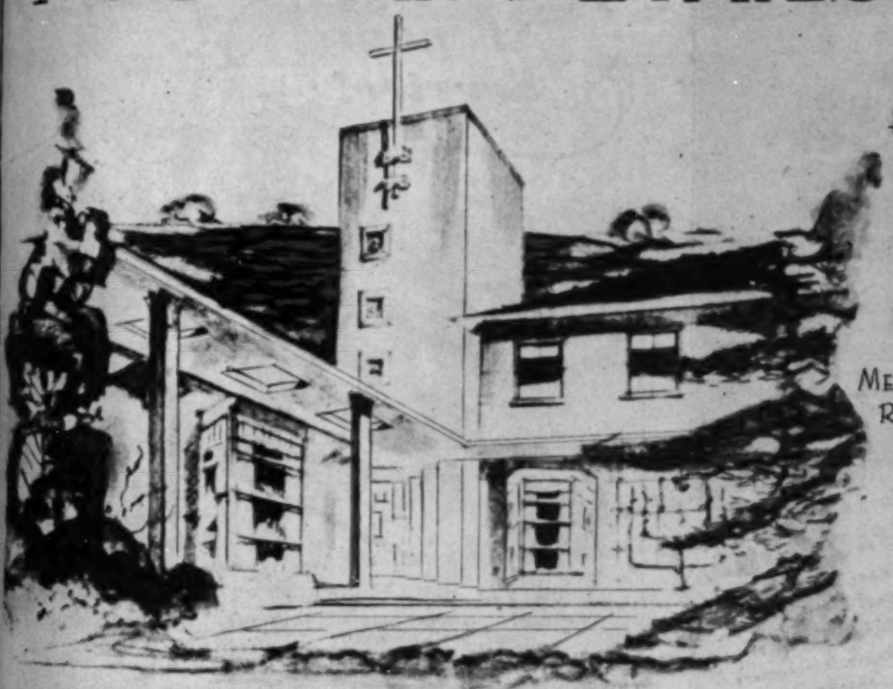

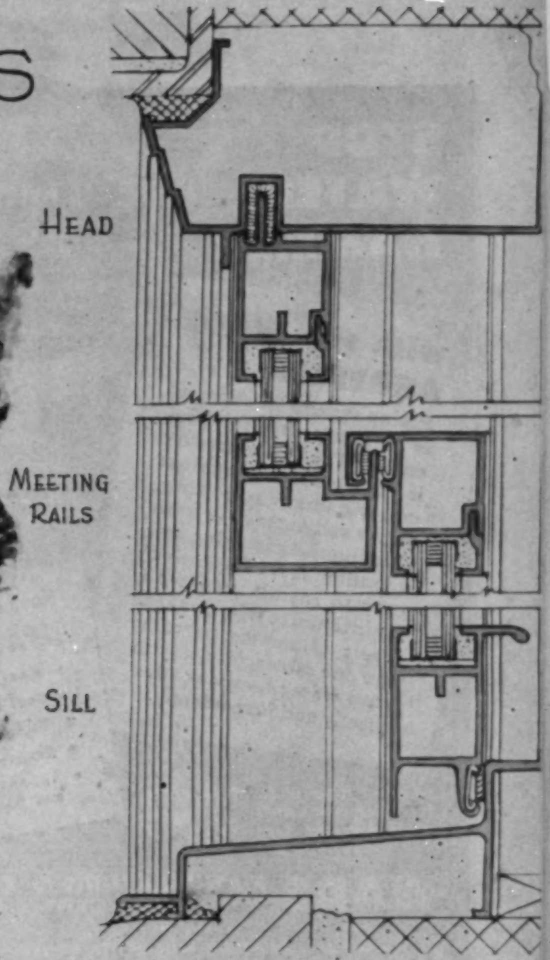

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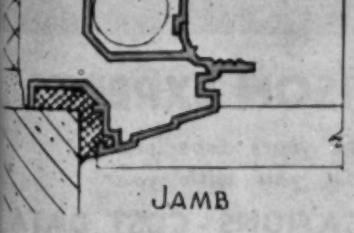

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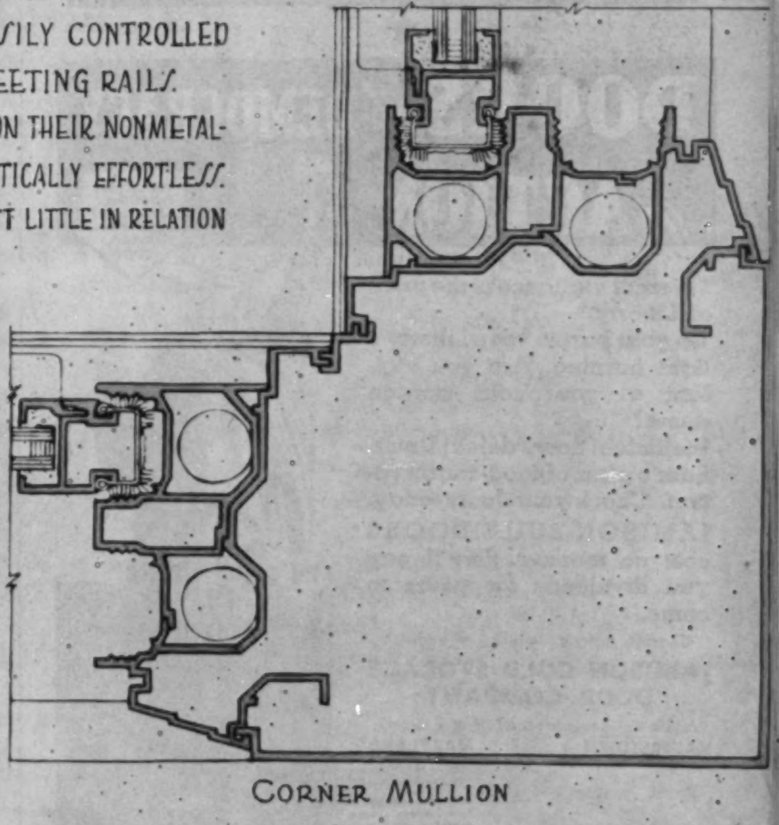
HALF-SCALE DETAILS

DOUBLE GLASS SHOWN



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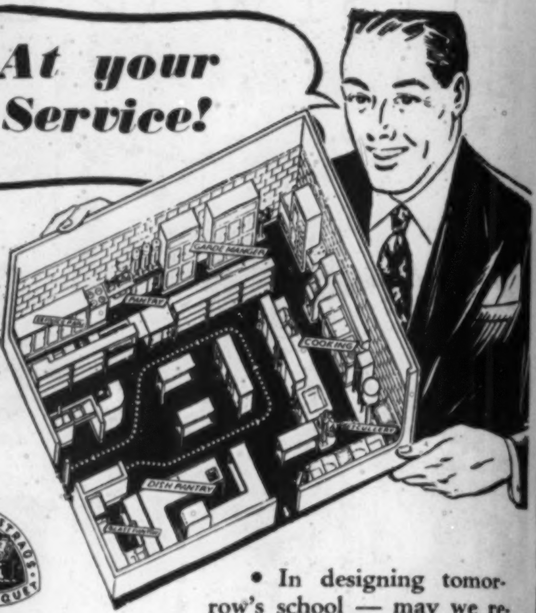

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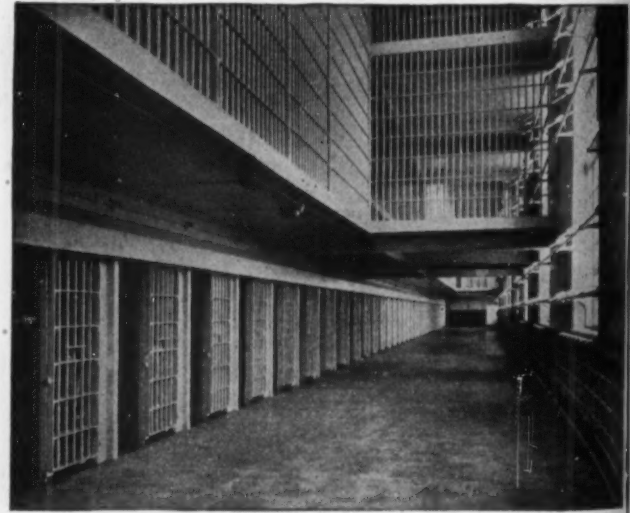

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PLANS - SPECIFICATIONS - COST DATA

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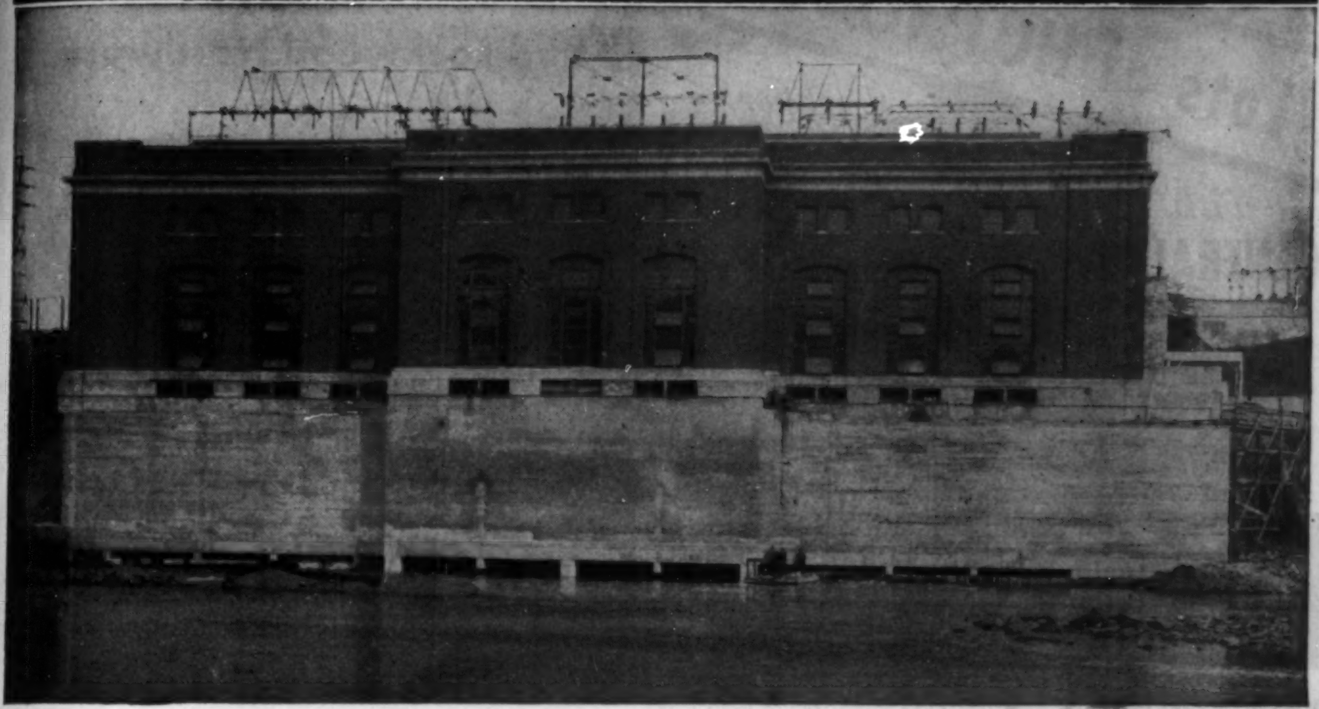
Structural Repairs at Hydro Station Made with Duraplastic Air-Entrained Concrete



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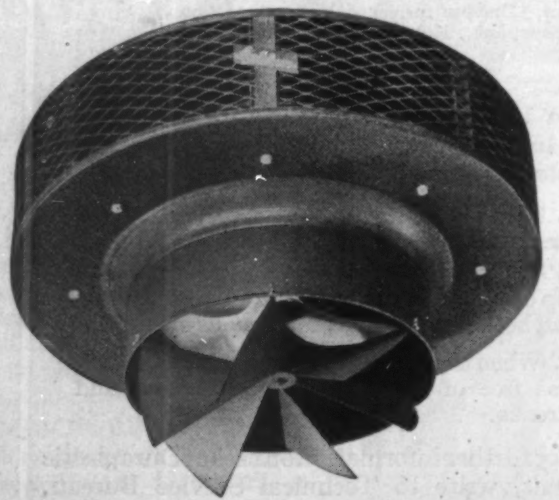

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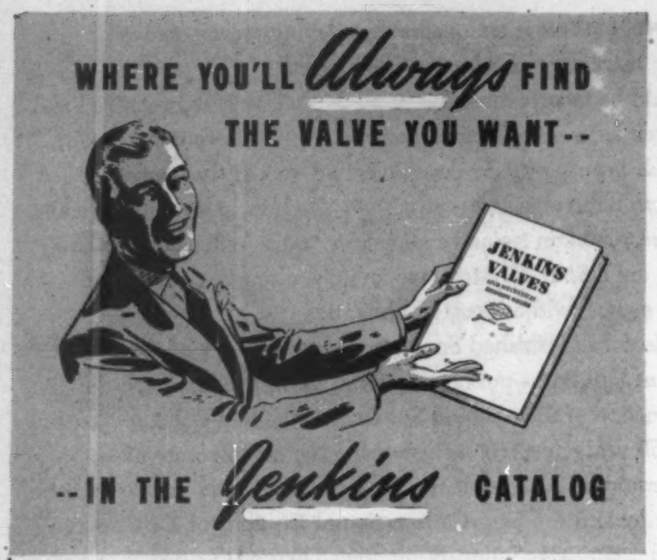

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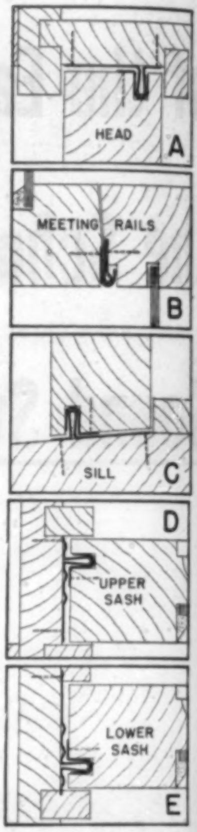

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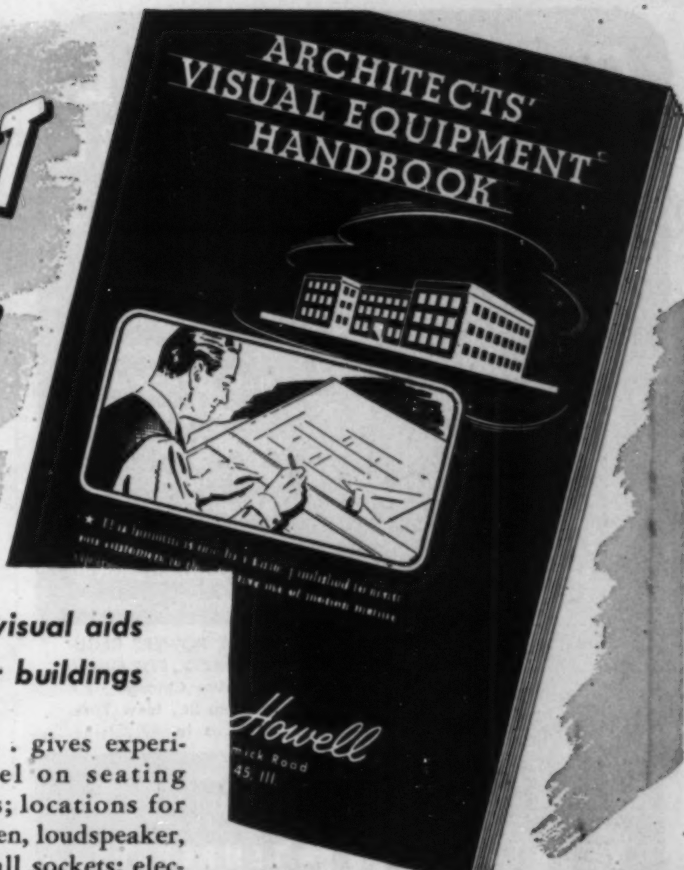

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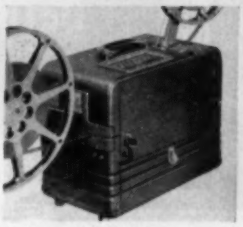

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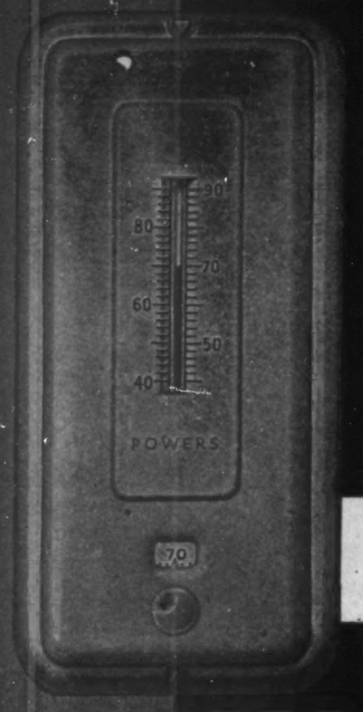

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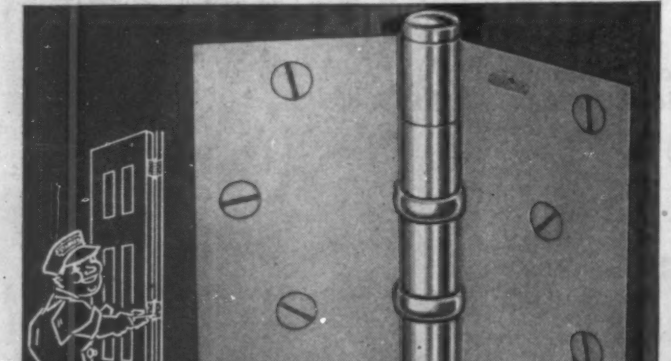

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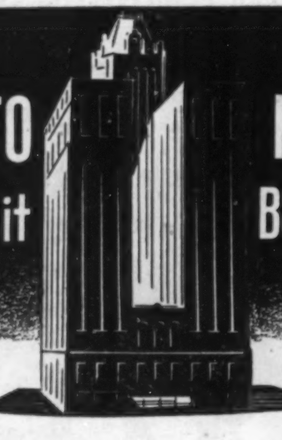

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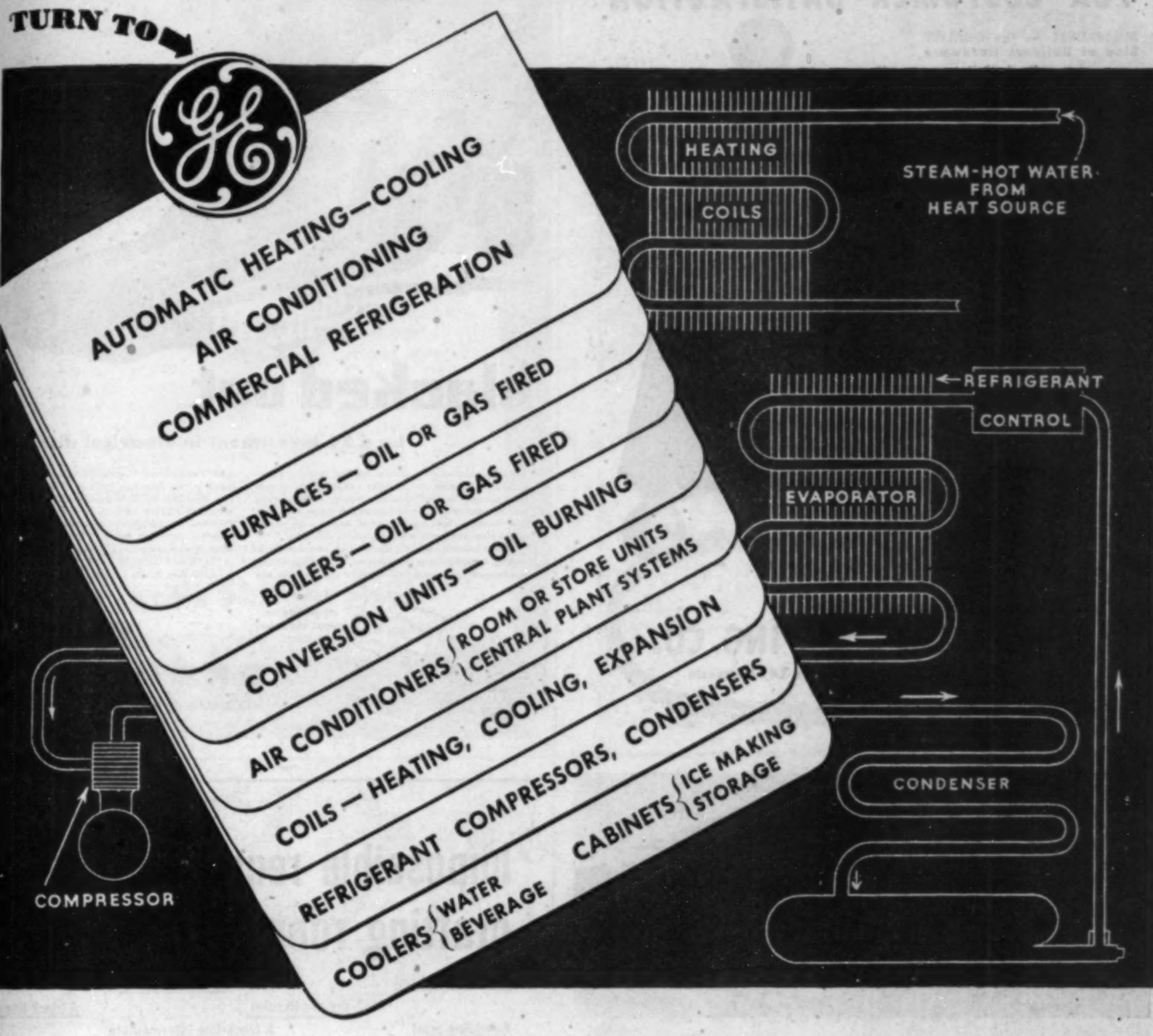
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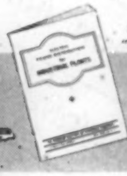

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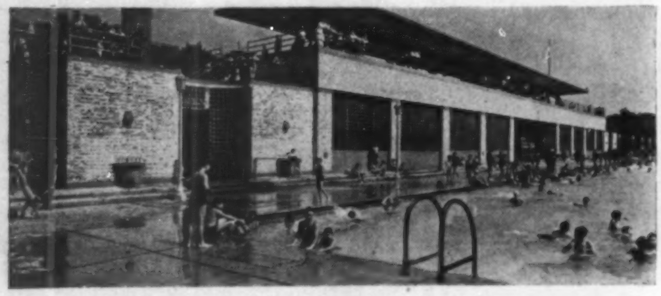

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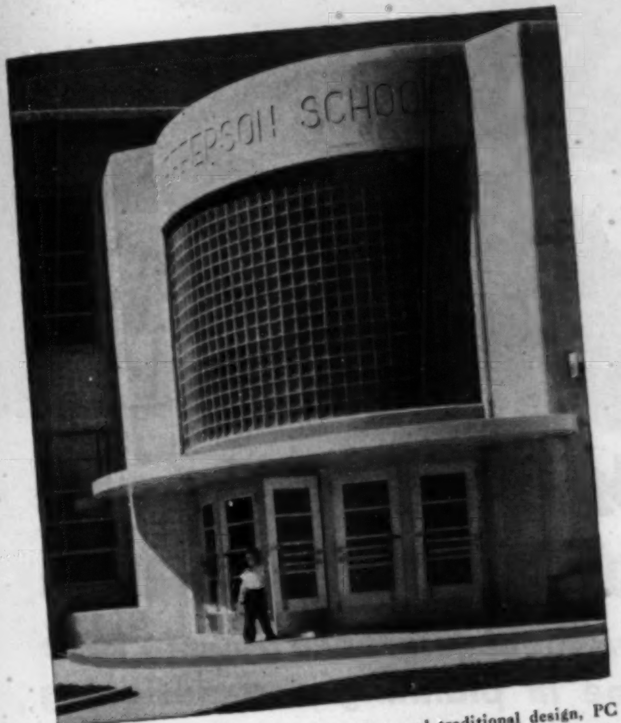

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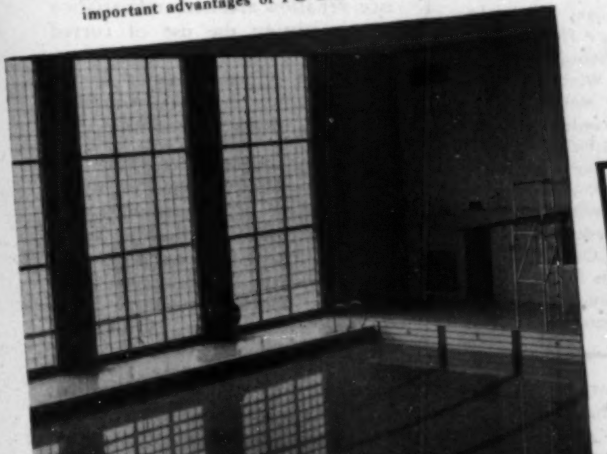

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MILCOR Fireproof School Construction Manual

..a convenient reference book to save you time in planning and designing

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A free copy of this helpful Milcor Fireproof School Construction Manual is available to architects working on plans for school construction. Please request it on your business letterhead.

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